

Harvard Medical Alumni Bulletin

July/August 1978



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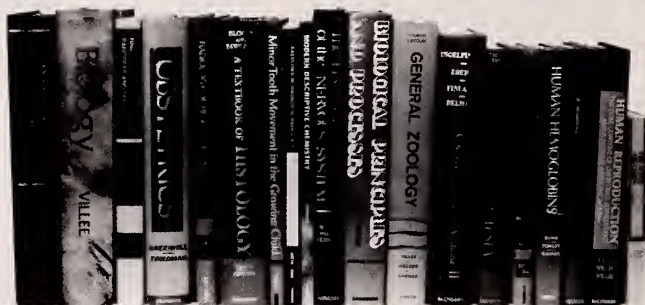
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Overview

Administrative adieus

These pages are often filled with the names and faces of new members of the HMS administration and faculty — and all the more so in this first year of a new leadership for the Medical School. But we should not neglect those who have served here for many years and are now moving on. Three important individuals in the administration, who had much contact with students, are now leaving HMS: Associate Dean for Academic Programs Robert S. Blacklow, '59; Associate Dean for Student Affairs Alvin F. Poussaint, M.D.; and Eileen Shapiro, Assistant to the Deans for Minorities and Women.

Dr. Blacklow is leaving to become dean of Rush Medical College and vice president for medical affairs of Rush-Presbyterian-St. Luke's Medical Center in Chicago. "I am a great believer in private sector education, and the great flexibility it offers," he commented. "I have been very happy at Harvard, but I could not resist an opportunity to run my own show."

Dr. Blacklow joined the HMS administration in 1968 as assistant to the dean for curriculum, and then served from 1969 to 1973 as general assistant to the dean, and from 1973 on as associate dean for academic programs. Among his accomplishments here he lists the development of the Harvard Health Careers Summer Program, an intensive educational and cultural experience designed to expose college students from minority and disadvantaged backgrounds to the opportunities for careers in the health professions. He also expresses satisfaction at the progress that has been made toward developing a "multi-level, selective curriculum" at HMS, in which each student can enter the educational waters in a given field at a level appropriate to his

or her preparation. Improvement in the advisory system, and the increased involvement of senior faculty, is another area in which Dr. Blacklow feels he has facilitated progress.

An as yet unattained goal, he feels, is "the development of a faculty-wide sense of responsibility in the affairs of the Medical School." Dr. Blacklow has spent part of his time at HMS in clinical teaching as associate professor of medicine at the Peter Bent Brigham, and will continue to do so at Rush, as well as working on the revision of his textbook, *Signs and Symptoms*. "The most exciting part of being here has been working with extremely bright students and faculty."

Dr. Alvin Poussaint will continue as associate professor of psychiatry at HMS, but is leaving his duties as director of the Office for Student Affairs in order to devote more time to academic research and writing. He plans to pursue research in issues relating to the family at the Judge Baker Guidance Center, and also to become involved in a national program to improve education in inner city schools.

During his service of almost a decade in the Office for Student Affairs, Dr. Poussaint has encouraged students to become actively involved in matters affecting them, such as admissions and minority recruitment; under his direction, the Student-Faculty Committee has become a strong voice in the School's affairs. He has also advocated student involvement in community life, through such activities as tutoring and working with children, encouraging young people to enter health careers, and participating in a hypertension and eye screening program. "Minority students are still very active in the community," says Dr. Poussaint. "The Black Health Organization, the Boricua Health Organization, the National Chicano Health Organization, the Maimonides Society and the Third World Caucus contribute a special element to medical school education. It is also important that they interact with all students. Students learn how to organize and conduct meetings, set up conferences and interact with their peers. The organizations also help students to keep in touch with the special problems of their own communities.

Even if they don't return to them, they will continue to be aware of the current problems that have to be dealt with."

Dr. Poussaint reflected on his role as a liaison between students and the administration. "I have enjoyed my work here a great deal, watching students grow and helping them over major hurdles. Their concerns should always be number one, and faculty time and the budget should continue to promote student scholarship, leadership, and well being."

Ms. Eileen Shapiro is moving across the river, where she will be special assistant to the Dean of the Faculty of Arts and Sciences. Her work will be concerned primarily with academic planning, including the core curriculum. She became assistant to the deans for minorities and women at the three Medical Area schools in the fall of 1977, after having worked for three years as senior staff associate to the Joint Committee on the Status of Women. As part of her efforts to improve the status of women at the Medical School, she has had discussions with the directors of all Harvard-affiliated hospitals, to ensure equal treatment and facilities for women and men medical students and house staff.

She has been involved in the review of faculty appointment procedures, associate status, and salary equity from the point of view of affirmative action, and helped develop a part-time master's degree program under which employees could study at nearby Wheelock College. Since the arrival of Daniel Federman '53 as Dean for Students and Alumni/ae, Ms. Shapiro has worked with him to set up more adequate counseling for women students, and to improve the educational experience surrounding the physical examination of male and female genitalia in the Introduction to Clinical Medicine. Throughout her stay at the Medical School, Ms. Shapiro has always made herself available to help minority and women students, faculty members, and employees with the resolution of problems affecting them.

Nauta captures Boylston award



Joan Turner '80, Boylston Society co-chairperson, presented Dr. Nauta with his award.

The French connection

Researchers at Harvard have begun collaborating and exchanging places with their counterparts in France, thanks to an agreement signed on May 24, 1978 by Dean Daniel Tosteson and Professor A. Berkaloﬀ, Scientific Director of the Life Science Division of the Centre National de la Recherche Scientifique (CNRS). The agreement culminates talks which began over a year ago between the Cultural and Scientific Attaché of the French Embassy, and Dr. Elkan Blout, Edward S. Harkness Professor of Biological Chemistry at HMS. "It became apparent," explains Dr. Blout, "that there were many areas where work was proceeding at the forefront of knowledge both at Harvard Medical School and many CNRS supported laboratories. Therefore a mechanism to allow easy collaboration between scientists in France and at HMS should be beneficial." It is now possible for scientists with common research interests to work together and benefit from a reciprocal evaluation of research and results.

The first French visitor to Harvard under the agreement is Dr. Rene Motais, professor in the Laboratory of Cellular Physiology, University of Nice, who has been working in the HMS department of physiology. The exchange visits, which can be anywhere from several weeks' to a year's duration, involve scientists at the postdoctoral through senior faculty levels. Dr. Blout is coordinating the arrangements at the Harvard end; his French counterpart is Dr. Michel Imbert, Sous-Directeur, Laboratoire de Neurophysiologie at the College de France and assistant director for the life sciences at CNRS. Actually named in the agreement are sixteen groups or laboratories in France and nine at Harvard; additional departments are encouraged to become involved.

The oldest medical society in America — the Boylston Society at HMS — is enjoying a triumphant renaissance. After hitting the nadir of three members only a few years ago, the society now boasts nearly thirty, and when they gather for the presentation of research projects, the room is often packed with over a hundred eager listeners.

The Boylston Society's annual awards dinner on May 12, 1978 was an occasion for celebrating the new vitality of the group, as well as the special accomplishments of several individuals. Dr. Walle J. H. Nauta, Institute Professor of MIT and teacher of neuroanatomy in the Harvard-MIT Division of Health Sciences and Technology, was singled out by a vote of all four Medical School classes to receive the Boylston Award for Teaching Excellence. In addition, a newly introduced award of a silver medal for outstanding student presentations was given to Hilary Siebens '80 for her talk about her work running an aid station in East Africa, and to Mike Block, HSDM '79, retiring co-chairman, for his talk about his research on a vaccine against tooth decay. The other co-chairman stepping

down this year is Greg Koski '78. Next year's Boylston Society officers are Tom Cavin '80 and Joan Turner '80 (HST), co-chairpersons; Bruce Troen '80, scribe/historian; Julie Haller '80, secretary; and Griff Harsh '80, treasurer. The Society's mentor during this period of growth has been J. Gordon Scannell '40. He will be succeeded as faculty president by Mark Altschule '32, who will be serving his third term, after two in the 1940s.

At the awards dinner, Daniel Federman '53 addressed those present in a nostalgic vein. He had been a student member of the Society, was its 1966-67 faculty president, and in 1972 received the award for outstanding teaching. The Boylston Society, he said, represents quality, continuity and a focus for student intellectual and social life; as such, it can serve as a model for the academic societies Dean Tosteson is planning to introduce at HMS.

Harvard observed

Harvard has always been a kind of international meeting place, but in the past few months we have been unusually favored with visits from previously remote-seeming parts of the world. For three weeks in April, sixteen members of the fourth year class at King Abdulaziz University Medical School in Saudi Arabia were here, observing the practice of medicine in Boston teaching hospitals; in May, a contingent of fifteen oncologists from the People's Republic of China made Harvard-affiliated cancer care facilities part of their three-week study tour to seven American cities.

The Saudi students, who were accompanied by their associate dean of medical affairs, Dr. Saud Arabi Sejeny, attend one of their country's three medical schools, all opened within the past ten years. Their curriculum, which commences directly after high school, is an eight year program divided into



Drinking in rare treasures: the Saudi students examined fourteenth century medical texts by an Arab physician while on their guided tour of the Rare Book Room of the Countway with archivist Carol Pine.

three years of basic science and English, three more of hospital-centered training, culminating in a year of internship and one of residency. Any additional specialty training is taken abroad, most often in the US or Great Britain.

Medical education in Saudi Arabia is free, with a stipend for living expenses. Eighty men and forty-six women were in the entering class at King Abdulaziz Medical School this year, chosen from an applicant pool of 380 men and 190 women. Hospital care is also free for Saudi Arabians, with the cost to the government varying from \$100 to over \$300 per hospital bed day. Plans are now being made for a three hundred bed teaching hospital to be affiliated with King Abdulaziz Medical School.

Highlights of the Saudi students' rounds at Harvard were visits to the biophysics research labs in the new Seeley Mudd Building, the electron microscopy facility at the Laboratory for Human Reproduction and Reproductive Biology, the special care nursery at the Boston Hospital for Women, and the rare books room at the Countway Library. Next year, another sixteen students from King Abdulaziz — the other half of their class — will be making the trip to Boston. These visits have been arranged with the help of Richard Wittrup, the former executive vice president of the Affiliated Hospitals Center, who is currently administrator of King Abdulaziz University Hospital.

The oncologists from China were, as might be expected, more specialized in their interests. The major stops in their Boston itinerary were the Cox Cancer Center of the Massachusetts General Hospital, the Sidney Farber Cancer Institute, and the oncology ward at Children's Hospital Medical Center. At each, presentations were made by Harvard faculty members, and the Chinese physicians described the similarities and differences between what they were observing and their own facilities and practices in the People's Republic.

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Providence, *Internal Medicine*

Adams, David H.
Children's Hospital San Francisco
Internal Medicine

Arnold, Andrew
University of Chicago Clinics
Internal Medicine

Augustyn, Damian H.
University of Colorado Affiliated Hospitals
Denver, *Internal Medicine*

The ins and outs of health care finances

The Program for Financial Management and Strategy in Health, an intensive eight-day course in the analysis and solution of problems with financial implications for health care delivery, will be held at the Harvard School of Public Health, December 9-16, 1978. The Program is designed for senior executives, who make major financial decisions in health care institutions or who make decisions and policies that affect the financial strategies of other managers in the health system.

An inclusive fee of \$875 covers instruction, teaching materials, room and board, and transportation to and from classes. Applicants must be sponsored by their employer organizations. Please address inquiries to: Administrative Director, Program for Financial Management and Strategy in Health, Executive Programs in Health Policy and Management, Harvard School of Public Health, 677 Huntington Avenue, Boston, Massachusetts 02115; (617) 732-1124.

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| Banner, William P. Johns Hopkins Hospital Baltimore, <i>Surgery</i> | Cooksey, Helen S. Beth Israel Hospital <i>Surgery</i> | Frist, William H. Massachusetts General Hospital <i>Surgery</i> |
| Baruzzi, Kevin P. Medical Center Hospital Burlington, Vermont, <i>Internal Medicine</i> | Detsky, Allan S. Massachusetts General Hospital <i>Medicine/Primary Care</i> | George, David L. Peter Bent Brigham Hospital <i>Internal Medicine</i> |
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| Bernhard, Jeffrey D. Beth Israel Hospital <i>Internal Medicine</i> | Doorey, Andrew J. University of Michigan Affiliated Hospitals Ann Arbor, <i>Internal Medicine</i> | Gottlieb, Steven E. Rhode Island Hospital Providence, <i>Pediatrics</i> |
| Bigby, Judy Ann University of Washington Affiliated Hospitals Seattle, <i>Internal Medicine</i> | Douglas, John M., Jr. University of Washington Affiliated Hospitals Seattle, <i>Internal Medicine</i> | Gropper, Adrian University of Oregon Medical Center Portland, <i>Radiology</i> |
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| Borah, Gregory L. Massachusetts General Hospital <i>Oral Surgery</i> | Fels, Anna O. S. The New York Hospital <i>Internal Medicine</i> | Haygood, Vanessa P. Duke University Medical Center Durham, <i>Obstetrics and Gynecology</i> |
| Bowen, Debra L. Dartmouth Affiliated Hospitals Hanover, <i>Internal Medicine</i> | Felsenstein, Donna Presbyterian Hospital New York, <i>Internal Medicine</i> | Hernandez, Valentin Los Angeles County-Harbor General Hospital, <i>Internal Medicine</i> |
| Brem, Henry Peter Bent Brigham Hospital <i>Surgery</i> | Fifer, Michael A. Massachusetts General Hospital <i>Internal Medicine</i> | Hernandez, Vivian S. Boston Hospital for Women <i>Obstetrics & Gynecology</i> |
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New York, *Internal Medicine*

Stern, Kathleen C.
Bronx Municipal Hospital Center
Pediatrics

Stoeckle, Mark Y.
Presbyterian Hospital
New York, *Surgery*

Storey, Eileen
University Hospital
Morgantown, West Virginia
Medicine/Primary Care

Strull, William M.
University of California Hospitals
San Francisco, *Medicine/Primary Care*

Tames, Steven M.
Presbyterian Hospital
New York, *Pediatrics*

Taylor, Clifford A.
Beth Israel Hospital
Internal Medicine

Taylor, Hugh M.
CWRU-University Hospital
Cleveland, *Family Practice*

Taylor, Prentiss B., Jr.
University of Chicago Clinics
Internal Medicine

Torres, Ivette B.
Montefiore Hospital Center
Bronx, *Family Practice*

Townsend, Janet M.
University of California (Irvine) Affiliated
Hospitals, *Family Practice*

Turner, Arnold F.
Michael Reese Hospital
Chicago, *Internal Medicine*

Tweardy, David J.
CWRU-University Hospital
Cleveland, *Internal Medicine*

Van Boeckel, Bruce A.
George Washington University
Washington, D.C., *Internal Medicine*

Vinson, Billy M.
University of Oklahoma Hospitals
Oklahoma City, *Surgery*

Waldinger, Robert J.
Massachusetts General Hospital
Pediatrics

Wallis, James B.
CWRU-University Hospital
Cleveland, *Internal Medicine*

Ward, Frank T.
Walter Reed Army Medical Center
Washington, D.C., *Internal Medicine*

Warren, Howland S., Jr.
North Carolina Memorial Hospital
Chapel Hill, *Internal Medicine*

Wasserheit, Judith N.
Presbyterian Hospital
New York, *Internal Medicine*

Weigle, David S.
University of Chicago Clinics
Internal Medicine

Weiss, Stanley H.
Montefiore Hospital Center
Bronx, *Internal Medicine*

Weiss, Walter R.
Mount Auburn Hospital
Internal Medicine

Welljams-Dorof, Eugene
Public Health Hospital
Brighton, Massachusetts, *Flexible*

West, Catherine G.
Peter Bent Brigham Hospital
Internal Medicine

Whitmer, Dorothy I.
Massachusetts General Hospital
Internal Medicine

Williams, Patricia D.
Montefiore Hospital Center
Bronx, *Family Practice*

Williams, Walter
Grady Memorial Hospital
Atlanta, *Internal Medicine*

Wise, Elizabeth F.
University Hospital Medical Center
San Diego, *Family Practice*

Yuan, Robin T-W
University of California Hospital
Los Angeles, *Surgery*

Alumni Day 1978



A round of laughs: it started with Deans Daniel C. Tosteson and Henry Meadow; then Frederick C. Minkler '43A and Oliver Cope '28 caught it; an unidentified alumnus passed it on to Thomas B. Quigley '33; and the last time we looked, Richard E. Hughes '53 and Granville Coggs '53 (below right) were still laughing.

Alumni Day as usual was full of good cheer and affectionate remembrances of the past. The events of the day created an intimate ambience that helped to compensate for the less than hospitable weather that prevailed. Some seven hundred alumni/ae returned to the Quadrangle and their memories. Among them was Daniel Tosteson '48, celebrating not only his thirtieth reunion, but also his first year as Dean of Harvard Medical School, the first alumnus since 1935 to be dean.

In his opening remarks, Perry J. Culver '41, director of alumni relations, boasted that Dr. Tosteson "has grown up in the tradition and is acutely aware of the mystique of the Harvard Medical School." Dean Tosteson then followed and in his message to the assembled alumni/ae, he described his learning process during the past year — "taking the bearings of the present state of Harvard and the directions it ought to move in during the years ahead . . . The view from Building A is rather different from that of Vanderbilt Hall." He emphasized that HMS "is a set of institutions which are still populated by exceedingly talented and dedicated persons."

Taking a breather from his job as Dean for Students and Alumni/ae, Daniel Federman '53 — member of the twenty-fifth reunion class — moderated the Alumni Day program. He provided a rich sense of continuity among the six speakers, as well as performing the rites of introduction. After topics ranging from an exegesis of Harvard's roots, to the detrimental effects of specious public health recommendations,

to the alignment of Harvard and MIT, the eighty-third annual business meeting of the Alumni Association was held, presided over by outgoing president Thomas B. Quigley '33.

It was the changing of the medical guard for both the Alumni Council and the Alumni Survey Committee. Almost one-third of the alumni/ae (2,465) exercised their franchise and elected the following new officers and councillors: Gordon A. Donaldson '35, president-elect; Melvin P. Osborne '42, secretary; Larry G. Seidl '61, councillor from the fourth pentad (1958-62); Phyllis Gardner '76, councillor from the first pentad (1973-77); and Ronald A. Malt '55, councillor at large. The unsuccessful candidates, whose willingness to serve makes the Alumni Association that much stronger, were: Richard P. Stetson '26, Dorothy B. Vilee '55, Roger J. Bulger '60, Phillip R. Pittman '77, and Edward H. Ahrens, Jr., '41.

Three members of the Alumni Survey Committee whose terms ended in June — Ruth C. Haynes '52, Granville C. Coggs '53, and Scott H. Nelson '66 — are being replaced by Edward H. Ahrens, Jr., Claire M. Stiles '56, and Phillip R. Pittman. Appointments to the Alumni Survey Committee are made by the Alumni Council and are for three years each. Dr. Quigley noted, "The Alumni Association has become more than a group of old friends gathering together and gossiping. It has become an important and powerful agency to advise the Dean and to help students. The most important tool of the Alumni Association is the very hardworking Alumni Survey Committee."

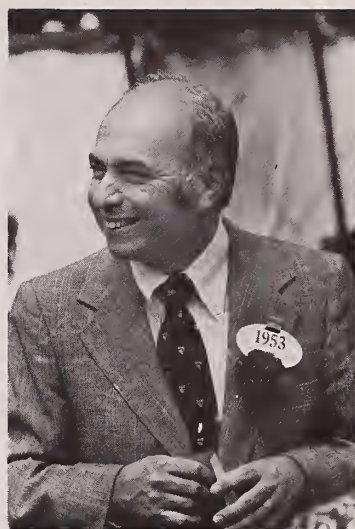
A syntactical change was made in the constitution, relating to associate members. Article 3, section 5 states: "Associate members shall include physicians, not alumni, who have been appointed to the faculty and staff of the Harvard Medical School for one year." The words "physicians, not alumni" were deleted and "nonalumni" substituted. Such a change allows HMS to extend associate membership privileges to members of the faculty who hold the degree of doctor of philosophy.

The proceedings were then turned over to Carl Walter '32, chairman of the alumni fund. **Carl Walter:** The annual report of the Harvard Medical alumni fund shows that 1977 closed as a record year with \$779,000 contributed by fifty-three per cent of the alumni/ae. In fiscal 1978 we are well on our way to achieving a similar feat. The leaders in this effort are the reuning classes, led by 1943A. Under the guidance of Jim Jackson, sixty-three per cent of their members contributed \$59,000 over the past five years. The second contender, the Class of 1928, has contributed \$55,000 with fifty-seven per cent participation, through the vigilance of Virgil Casten. Third in line is the Class of 1933, which has raised \$49,000 among sixty-six per cent of its members, thanks to the perseverance of Brad Cannon. The Classes of 1948 and 1953 are running a photo finish race — Phil Troen '48 has collected \$40,000 from sixty-five per cent of his peers, while the same yield came from fifty-six per cent of the Class of 1953, spurred on by Norman Crisp.

The combined participation of all of the reunion classes in 1978 over the last five years equals fifty-five per cent and the total dollar amount received by the fund in this same time period is \$390,000. The twenty-fifth reunion gift, which Dan Federman has just presented to the Dean, is for \$15,900.

The state of the alumni fund for 1978 as of June 1 stands at \$380,000 for unrestricted use — largely student aid — and \$180,000 for endowment purposes. The total of \$560,000

It took ten seconds for the members of the reunion committee of 1953 to come up with the name of the Alumni Day moderator: Daniel D. Federman.



William Christensen '42 of Salt Lake City, acceded to the presidency of the Alumni Association, and praised the work of the Alumni Council and Survey Committee. He was sanguine that "a more supportive and effective role for alumni in the future development of this great institution" will come to pass. Dr. Christensen practices radiology at Valley West Hospital in Granger, Utah.





Profiles in thought: Thomas B. Quigley '33, now past president of the Alumni Association, waits for the word from president-elect Gordon A. Donaldson '41 (left) and John P. Dixon '62.



Dr. Quigley introduced HMS's "awesome" financial ace, Carl Walter '32: "It is said of Carl that he can hear the crash of a dollar bill fluttering down on a silken cushion across a crowded, noisy room, if that dollar can possibly be gotten for the Harvard Medical School."



does not include some interest income from trust funds, nor the proceeds from some deferred contributions, which have not yet been recorded. The Living Endowment Group comprises 425 alumni/ae who have each given at least \$2,000 since their graduation. The Class of 1928 is the bellwether with twenty-three (out of seventy-three) of its number members of that group.

There are 650 fewer donors this year than last. The bright side of this decline is that those who gave were more generous, but we still have footloose alumni/ae to cajole back into the fold. At the Alumni Council meeting I was instructed to raise my sights, and to propose to the alumni/ae that we are looking for a per capita gift of one hundred dollars. In 1978 we realized a per capita donation of twenty-seven dollars. Up-ping the ante should not hurt and would enable many students who require financial security, to really get down to work and do a good job as our successors.

A more polished oratorical style than that of Thomas B. Quigley would be hard to imagine. With punctilious elocution he finessed the Alumni Council toward using the most succinct rhetoric possible at its meetings. He railed against the jargon of the bureaucrat — which, he asserted repeatedly, has replaced the King's English — and its insidious appearance within academia. Dr. Quigley relinquished his office with "Remarks on ending a tour of duty as president of the Harvard Medical Alumni Association."

It is my duty, as the recipient of the highest honor you can bestow, the presidency of the Harvard Medical Alumni Association, to report to you certain aspects of the state of Harvard Medical School at the end of its 197th academic year. The new dean is great. He is a man for all seasons, deeply aware of the awesome responsibility of organizing a curriculum that will give the student the right mix of science and clinical experience to earn a Harvard M.D. He hopes to see a renaissance of the collegiality of the student days of many of us, and I am sure he will succeed.

During the past year, like the seven year locust, Harvard Medical School was afflicted once again by mandatory self-examination. This time, Dean Tosteson asked that it be something more than a neurotic, introspective, verbose documentary ritual. And so it was. Considerably more. Among other things it was constructively critical of certain courses, concerned (as always) about admissions and proud of the immediate success and great promise of the affiliation with the Massachusetts Institute of Technology. It looked into the future when, not too many years hence, the M.D. degree will be only a pause, a first step in a career of lifelong education for Harvard physicians. (The entire contents of the report's summary appear in the pages of the May/June *Harvard Medical Alumni Bulletin*.)

The students get better and better. They have completely recovered from the widespread student illness of the '60s and now admit that the members of the faculty usually know a little more than they do, and that is why they are students and the faculty is the faculty. This is a great step forward.

Their intellectual equipment is, by any yardstick, superior. Their costume during four years gradually changes from unisex jeans and sweatshirts to jackets, neckties and quietly elegant dresses. They are tolerant and gentle with their elders. The day may even come, again, when the men shine their shoes!

So, Harvard Medical School is in good health, although not as wealthy as generally believed, and continues as a national and international institution well worth the large sums of money Carl Walter is teaching us to give individually, and through our patients. But, there is room for improvement in the relationship between the Medical School and the rest of the University.

The glue that holds Harvard University together gets somewhat strained between Cambridge and Boston. In the past twenty years, only four of a great many internationally distinguished alumni of Harvard Medical School have been awarded honorary degrees by their alma mater, and only one of four Nobel Laureates. Now we go to Cambridge when invited, or in the case of tenured professors, ordered. Perhaps medical students should become active hosts. If law students were to understand how medicine also seeks the truth, it is possible that their ninth century method of trial by combat by hired champions might begin to change to something more relevant to our time.

Business School students might better understand what their own great teacher, Rothelesberger emphasized — that individual human beings, with all their complex problems, are the basis of all productive enterprise. Divinity students, deep in the fascinating study of ancient Aramaic and Greek literature, would encounter firsthand in our hospitals the raw, tough problems they will be called upon to help solve throughout their careers. And the members of the college, the heart of the University, one-third of whom as freshmen hope for a degree in medicine, richly deserve the opportunity to meet medical students and faculty in their own environment, to see directly what physicians do, and to be advised by clinicians as well as basic scientists. Surely this sort of experience is essential to the truly liberal education. The details of such a policy of opening the doors of Harvard Medical School to other students of Harvard University are not difficult to implement and could very easily be worked out by students themselves.

But to return to our own precious commodity, the medical students who are, in their own argot, what it's all about. Without them, of course, there would be no University and no Medical School. I want to assure you that in one way those who have slaked their thirsts and, indeed, at times have wallowed in the Pierian Spring known as the Harvard Medical School, have not changed in the past forty-five years. They are so superior that nothing the faculty can do or fail to do can stay their continuous pursuit of excellence in medicine.



If you reduce your protein, fat and calorie intake, you might prevent corns

by Donald B. Louria

Disease prevention is one of the popular political and medical shibboleths of the 1970s. The public and to a large extent the medical profession have been persuaded that there are a great many adult diseases that can be prevented if we will but change our lifestyle. A lot of people seem to believe that all you have to do to live longer is get enough sleep, eat a good breakfast, and avoid between meal snacks. It would be nice if this were true, but such claims in actuality are based on inadequate data that have enormous methodological difficulties and have not been confirmed. Furthermore, I would wager that the overwhelming majority of the physician advocates of these prescriptions for health and a longer life have, in point of fact, never read the articles on which these conclusions were based. There are other similar grandiose claims — that many cancers can be prevented by reducing dietary fat intake; that bowel cancer can be prevented by increasing the unabsorbed fiber in the diet; that heart attacks can be prevented by regular exercise, reducing stress and/or modifying the Type A personality.

It seems to me that the quickest way to destroy public confidence in our prevention programs is to promise what we cannot deliver. There is, for example, no evidence that the Type A personality can be modified to change heart attack proclivity. Nor is there any reason to believe that this category is homogeneous, or that it is easy to delineate an in-

dividual as Type A. The case for exercise preventing coronary heart disease is also not completely convincing. My qualms about simplistic assumptions and transmuting unproven hypotheses into public health policy can best be expressed by summarizing three intriguing studies relating to risk factors for bowel and other carcinomas.

First, in regard to the dietary fiber hypothesis. The idea is to ingest the unabsorbed fiber, shorten the bowel transit time, change the bowel flora, reduce carcinogen contact time with the bowel mucosa and prevent bowel cancer. This theory is based on observations of black Africans who eat a lot of vegetable fiber that is unabsorbed in their diets. They have a rapid bowel transit time and a low incidence of bowel cancer.

There are some contradictory studies of nations in which the bowel cancer rate is low and the transit time from mouth to excretion is rapid; this is consistent with a low cancer rate. When the natives migrate, the incidence of bowel cancer rate increases, but the transit times do not. These observations are hardly of comfort to proponents of the dietary fiber-bowel cancer hypothesis. The whole dietary fiber-transit time-bowel cancer concept must be viewed with great caution.

The second study relates to the intake of animal fats, and the induction of bowel and other cancers. Presumably,

a diet high in animal fat changes the bowel flora and results in larger numbers of carcinogen-enhancing bacteria. Central to this hypothesis is the assumption that changes in dietary animal fat will alter the bowel flora qualitatively and quantitatively. A study published in the *Annals of Surgery* in July 1977 compared the gut flora in vegetarians and carnivores. No significant differences either qualitatively or quantitatively were found. Obviously, there are other mechanisms by which the diet with a high proportion of animal fat could promote carcinogenic changes. At the very least, this study is disquieting and mandates that those who advocate a low animal fat diet as public health policy for cancer prevention compile a great deal more evidence in support of the hypothesis.

The third observation relates to the Seventh Day Adventists, who are remarkably protected against a variety of cancers. Some of this cancer protection undoubtedly relates to the fact that they do not smoke tobacco or drink alcohol. But they are also protected against cancers that have no relation to tobacco and alcohol, such as those of the ovary, colon, and rectum. It therefore has been assumed that their immunity relates to their vegetarian diet. But the protection rates are virtually identical — the data are superimposable — between the Adventists and the Mormons, who do not smoke or drink either. Significantly, the Mormons are not vegetarians. One cannot make the facile conclusion that

"Can there be any doubt that by the year 2000 we will be at the saturation point in physician manpower?"



the diet is a major factor in Adventist protection if the Mormon cancer rates are considered simultaneously.

I do not cite these three studies to attempt to controvert the hypotheses that link dietary fiber or dietary animal fat intake to cancer incidence, but rather to stress my own conviction that we must demand impressive and convergent evidence before making any recommendations for public health policy in the area of disease prevention. Our own program in the department of preventive medicine at the New Jersey Medical School for primary and secondary prevention (early intervention or risk factor modification) is simple indeed. We believe it is limited to recommendations based on strong and defensible evidence:

1. Cholesterol determination every two years.
2. Blood pressure determination every two years.
3. Hemoglobin every two years.
4. Pap smear every two years after age twenty-five.
5. Self-examination of the breasts every three months, starting at age thirty.
6. Mammography yearly after age forty.
7. Stool guaiacs on three successive stool specimens yearly after age forty.
8. Proctoscopy every five to seven years after age fifty for polyp removal.
9. Limitation of cigarettes to less than ten per day of the filter variety.
10. Use of seat belts and other restraints for all automobile passengers. It is appalling to realize that less than ten per cent of the children in this society are properly restrained in automobiles. According to a survey that we did, fifty per cent of the physicians do not bother using seat belts themselves. We deliver children in our hospitals, give the mother her baby, then allow her to go into an automobile and drive away accident-prone because that baby is not properly restrained.
11. The last point is glaucoma testing every five years after age thirty-five.¹

1. We also recommend regular observation of weight and we obtain high density lipoprotein and triglyceride concentrations if the person is overweight and/or cholesterol levels exceed 219 mg.%.

This, for the apparently healthy adult, is all we can recommend on the basis of present evidence. I outline this program only to emphasize that if the prevention recommendations are limited to what is well-documented, then there are not many. I believe that implementing this simple, reasonably inexpensive program would be highly desirable, but an imminent circumstance is likely to vitiate any effective prevention program that needs only minimal physician input. (Of the eleven points I summarized only one — the proctoscopy — requires physician involvement.)

That contretemps is the coming doctor glut. The notion of more doctors and less prevention is not oxymoronic. If there are too many physicians there are two potential outcomes. On the one hand the plethora of doctors may result in more competition and good medical care at less cost to the patient. The other possibility, and to me the more likely, is that doctors out of personal economic necessity will have to use our burgeoning technology more extensively at greater cost to the patient; they will be far less willing to focus on a type of disease prevention that requires less physician participation and risks reduced income. We are seeing physicians who practice in doctor-laden areas, and take excessive numbers of cardiograms, do too many bronchoscopies, and the like in an attempt to maintain what they perceive to be adequate incomes. This situation will get ineluctably worse.

To me the figures are startling and distressing. When we graduated from medical school in 1953, there were approximately 135 active physicians per 100,000 persons in the United States or 1 physician per 740 persons. Since then, the figures have changed dramatically according to data compiled from American Medical Association analyses and a Carnegie Commission report of 1976. In 1970, the number of active physicians per 100,000 had increased to only 140, but by 1976 there were between 160 and 170 active physicians per 100,000 persons, for a physician:patient ratio of about 1:600. At this rate of increase, by 1985 there will be about 200 physicians per 100,000, a ratio of approximately 1:500, and by the year 2000, a short twenty-two years hence, there will be approximately 260

doctors per 100,000 persons, a ratio of 1:385. And this is a conservative estimate.

With continuing growth in medical student populations and the simultaneous decrease in the annual net increase in population in the United States, the physician:population ratio by the year 2000 could well be more than 300 per 100,000 and approach the incredible concentration of 1 physician for every 300 persons. Can there be any doubt that by the year 2000, less than the interval between our graduation in 1953 and the present, we will be at the saturation point or beyond in physician manpower?

Our medical manpower planning seems dominated by politicians and medical administrators interested more in political exigencies and costs per student than in the possible consequences of physician overpopulation. New Jersey is a veritable paradigm of a state that I believe is moving inexorably to a crisis. In 1970, the state had 125 physicians per 100,000 persons. By 1977, this figure had increased about 40 percent to approximately 170-183 physicians per 100,000. At that rate of increase, by 1985 there will be between 225 and 260 doctors per 100,000 persons. As for medical students, in 1970, 72 were graduated from the state medical school. This year, 181 graduated, and by 1985, the state school will send forth in the range of 360 medical students, an increase of 400 percent over the number of graduates in 1970. In the face of this extraordinary jump in physician supply, class size at the two fully functioning medical schools in the state is being increased. Additionally, a new osteopathic school, that may have been needed in 1970 but is now, in my judgment, superfluous, is being built.

One argument for this striking overproduction of physicians is that our population is growing older. But the modest increase in the population over age 65 (projected as a 40 percent increase by the year 2000) and the assumption that they need twice as much medical care will not absorb the marked physician supply increase. Any restrictions in the number of foreign medical graduates will only postpone by a few years the time of crisis, and a reduction in non-American foreign medical school



graduates will be offset somewhat by Americans trained overseas, a number that has appreciated in the last decade. In 1966, there were an estimated 2,325 such students; at present, the number is in the 6,000 range.

A third argument is that the inner cities are crying for physicians. Newark, New Jersey is cited as an example of this. But in three of its five wards Newark is not suffering from doctor shortages; indeed, young physicians are finding it difficult to make a living in these areas. The remaining two wards are considered unsafe, and physicians will not establish practices there until their lives are secure. Perhaps the idea is to produce so many physicians that, out of economic necessity, some will be forced into dangerous inner city areas.

We are moving to a physician glut that will change the nature of medical practice in the United States. Unless all physicians are salaried, the physician surplus will create a medical milieu not conducive to the implementation of the kind of prevention program I previously outlined. I believe that if we continue our present course, there will be no alternative to having all physicians salaried by the year 2000.

It seems to me that we are at a crossroads in regard to two aspects of prevention. First, the climate is propitious for acceptance of prevention programs by the public. If programs are to succeed, they must be simple, inexpensive, and have the support of the medical profession. We must be sure that their components are valid, for should some of them turn out to be invalid, there is a strong likelihood that a public distrustful of our recommendations will be less inclined to practice primary and secondary prevention. Second, we as a profession had better examine carefully the physician manpower issue. If we do not, the physician glut of the coming decades will not only make it more difficult to implement prevention programs but may also reduce the attractiveness of and enthusiasm for the practice of clinical medicine in the United States.

Donald B. Louria ('53)'s long standing interest in infectious diseases led him in the early 1960s to become active in a morally responsible and scientifically productive way in the area of drug abuse. For nearly a decade he has been chairman and professor, department of preventive medicine at the New Jersey Medical School.

*Children are the future only
if we put their interests first*

Dollars, dogs and diapers, or do we really pamper our children?

by Donald N. Medearis

First, I should explain the title. Its phrasing is the brainchild of Dr. Robert Meyer, chief resident in pediatrics at the MGH. It reflects feelings that we pediatricians often have, that society seems to spend more and too much on so many things other than its children; that sometimes there seem to be more laws protecting dogs, or detrimental to children than vice versa; and that contrary to conventional wisdom, too few of our children are properly pampered even when "disposably" diapered. These feelings are based on sufficient fact to warrant serious concern, and to prevent our being labeled "paranoid." Were I more talented I could put these issues as eloquently as did Charles Dickens, were I wiser I would have listened to Piet Hein's "A Tip" from *Grooks 2*, "Those who would speak have a lot to learn from those bright enough not to,"* and remained silent. But the major health problems of infants and children deserve a public hearing.

The most severe is poverty. Nearly all their other health problems are rooted in it. From 1970 to 1974 the percent of those over 65 years of age in poverty (in 1974 it was defined as a family of four living in a non-farm area on less than \$5038 per year) decreased from 24.5% to 15.7%; but for children the percent increased, from 16.7 to 17.4. Now in our bicentennial years we are faced with the fact that it is our children who

are the most poverty stricken group in our land — seventeen million of them. It is frightening to think that as this was occurring the number of unwanted teenage pregnancies was significantly increasing, frightening because of what it may portend for the future. Pregnancy is now the single most common cause of teenage hospital admissions in the US, and more babies are born to poor teenagers. (Although more recent observations suggest that the number and proportion are decreasing, the essential problem remains.) Many are quite young; a baby born to a woman under fifteen has almost three times the chance of incurring neurologic damage as one born to a woman eighteen to twenty-four years old.

Much has been said about infant mortality rates, but much less emphasis is placed on comparing these with adult mortality figures. Fifteen babies die of every 1000 born; the overall mortality rate for the US is much less, under nine per 1000. The rates for those under one and over fifty are about the same. The major killers of those over fifty are cardiovascular and neoplastic diseases with overall rates of five and two per 1000, respectively; those of the newborn cannot be so clearly defined, although most are associated with prematurity.

Those who survive the stress of being born are all too often afflicted for life. There are more than 1,700,000 mentally retarded in our land, many of whom

were affected in neonatal life. Three-fourths of the retarded live in slums.

Then, there are the "newer" maladies. Abuse, for example; it has been estimated that there may be one million abused children, many of whom are far from poverty stricken. Lastly, and deeply troubling, is that twenty-eight per cent of all teenagers are estimated to be problem drinkers, which is a partial explanation for the fact that the leading cause of death in adolescence is accidents. Equally tragic and somehow even more troubling is that homicide and suicide are the second and third causes of their dying.

The health problems of our children are great and seriously damaging to them and to all of us. Clearly the solutions lie in many fields — education, employment, environment, health and housing, but our role is a vital one. Children's health problems are sufficiently prevalent and place those in jeopardy at sufficiently high risk of morbidity or mortality to justify their being addressed with a vigor equal to that with which we try to solve our other major health problems. How, then, are we approaching the solutions? In a word — inadequately.

In 1975, of every dollar spent by the federal government for health services 90¢ went to that 60% of the population over 18, whereas less than 10¢ went to that 40% under 18. The percentages have changed but little since. Of

* The verse actually reads, "can write".

"If preventive medicine is what many believe it to be, better health for children would result in better health for adults."



Medicaid expenditures 17¢ went to the 47% of those eligible who are children, and 49¢ to the 19% over 65 years of age! In 1975 only \$15 billion of HEW's \$90 billion budget was spent for services affecting children.

Research expenditures for diseases of children are neither significantly greater, proportionately, nor I suspect, are they any more easily justified. I spoke earlier of the major killers of adults, cardiovascular and neoplastic diseases, neither of which has a mortality rate approaching the neonatal mortality rate. It is of concern to me that the budgets of the Cancer Institute and the Heart Institute for 1978 are \$867 million and \$446 million, respectively, whereas that of the National Institute for Child Health is \$165 million. One would have to analyze these figures in a much more discriminating way in order to arrive at a truly informative comparison, yet even if that research supported by the Cancer and Heart Institutes which could be considered relevant to the problems of infants and children were taken into account, I am sure children's interests would not be served fairly.

These national expenditures are even more worrisome when we note that this past year personal expenditures in the US included eighteen billion for tobacco, twenty-eight billion for alcohol, and but six billion for private education and research. In contrast, the entire 1977 NIH expenditures were just over two billion and for all health related research and development five and a half billion was expended! We are often told that such comparisons are misleading and that they will not lead to effective action. I believe they must be made, because our children deserve advocates who will not accept such differences. They are unjust, unfair, and unwise.

If this is an indication of what we are doing, what should we be doing instead? I believe we should formulate a national health policy. Within it, health goals pertaining to children should be clearly identified and given a much higher priority than that reflected by current allocations.

I share with my pediatric colleagues the conviction that the following constitute reasonable goals for us to achieve for

our children; these are the goals established by the American Academy of Pediatrics.

Children should be wanted and born to healthy mothers. They should be born well; they should be immunized and have good nutrition. They should be well educated about health and health care. They should be able to live in a safe environment. Those with handicaps should be able to function at their optimal level. Children should live in a family setting with an adequate income. Finally, adolescents should live in a societal setting that realizes their special needs and provides for them. We could readily establish specific objectives to achieve these goals in a step-wise fashion.

Not only children, but all of us would benefit from the attainment of these goals. If preventive medicine is what many believe it to be, better health for children would result in better health for adults. Nevertheless, I am concerned that we may neither set nor achieve these goals, because I fear the data I have presented reflect the fact that child advocates are not represented adequately in the decision making councils of our society. Until we know more about decision making, how to make it more rational and more ethical, a major effort must be



expended in advocacy. Even with such advocacy the task of convincing the public and the decision makers will be difficult and long, as I shall describe.

Last September a two year old boy with leukemia was brought by his parents to Dr. John Truman of our staff. When his condition and circumstances were all carefully considered it could be predicted with confidence that he would be alive, well, and off chemotherapy ten years from now, provided he was treated comprehensively and intensively according to generally accepted protocols. That was done and the child's disease went into remission. However, the parents discontinued his maintenance treatment without telling the physician, doing so, they said, because they believed the child would benefit from diet therapy alone. When the parents stopped giving their child his medicine and instead modified his diet, the disease exacerbated. We appealed to the courts because we believed an impartial decision should be made, one which would attempt to hear the child's side as well as the parents' and ours. After a series of decisions the Superior Court decreed that the child should be treated; the parents appealed and the Supreme Judiciary of the Commonwealth has taken the case under advisement. In the interim the child is being treated and is doing well.

My point in raising this final example is to bring out what the public thought. The *Boston Globe* conducted a poll on this issue, which, as many of you must know, was brought to the nation's attention. A majority of respondents believed that "parents should always have the right to decide what sort of medical treatment their child should get;" that is, apparently they believed there were no circumstances whatever in which the parents' opinion about their child's care should not prevail. Fortunately, the Superior Court judge noted and acted, in part, on a contrary opinion that "parents may be free to become martyrs themselves. But it does not follow that they are free . . . to make martyrs of their children . . ." That dramatically emphasizes the point of my remarks, my message, my plea. Children need advocates, they deserve them, and society would benefit if such individuals existed and were successful. Children cannot fight their own battles.



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Until a year ago, Donald N. Medearis '53 was dean of the University of Pittsburgh School of Medicine. He returned to Harvard as the Wilder Professor of Pediatrics and chief of the children's service at the Massachusetts General Hospital.

Statistics show that many generalists eventually defect to the subspecialties

Encounters of the primary kind

by Charles E. Lewis

Occasions such as this provide a time for retrospective evaluation of that grand experiment called life. This frequently takes the form of, "You say so-and-so is doing what? Who in the world would have ever predicted that!" Since all retrospective evaluations share the principal problem (or in some cases, salvation) of lacking clearly defined, unambiguous criteria for "success," it is possible for almost everyone to succeed (fortunately). There are, however, definite judgmental dimensions attached to various criterion items that reflect the values of the evaluator. Achievement may be measured in terms of academic rank or intellectual performance, as measured by the length of one's curriculum vitae. Professional success may be assessed by one's total contribution to the gross national product, or the esteem of one's colleagues as reflected by election to responsible positions within certain societies. For physicians, achievement might best be measured by the opinions of one's patients. Each of these, though, has its own peculiar measurement problem.

For example, when translating CV's there is a conflicting volume of literature that cites different coefficients in the correlation of one publication in the *New England Journal* to x numbers of publications in other periodicals. One article that contains data is worth several descriptive efforts, unless the data are considerably poorer than the prose.

There are similar problems in the measurement of income. Investments in real estate are not exactly equivalent to investment in the education of children, and goodness knows how one reduces the presidency of the American Society of Anything to some sort of dollar equivalency. Finally, in calculating patient satisfaction, a research area with which I have some personal acquaintance, one finds that "beauty is in the eyes of the beholder." Despite multivariate analyses and factor analytic approaches, most patients seem reasonably satisfied with almost anyone who does anything kind for them.

All of these qualitative yardsticks are proxies for the most important measure of success, and that is "self-fulfillment." This rather maudlin prelude is not unrelated to the main theme of primary care, which has been getting more attention than any other area in the health field, outside of national health insurance.

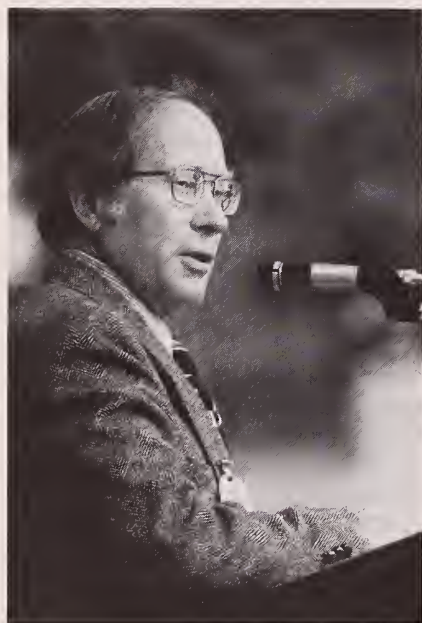
Almost everyone has written about primary care. One of the major problems is that most of us who write the most, do the least. At present there are a variety of efforts underway to reverse the trend toward specialism and subspecialism, and to produce more practitioners of family medicine, general internal medicine, general pediatrics, or some amalgam thereof called health care teams — a euphemistic phrase for something, in my experience, that resembles a street fight or a gang war. Despite the conflict,

this usually is a most enjoyable and important kind of exercise.

One of the primary problems in primary care is that training goes on in academic health centers or their affiliates. These represent better bases for basic research than primary care. A cursory examination of the capital investments and outputs of these places that many of us go to every day reinforces that point.

How should primary care be taught? A variety of models have been suggested. In some places where state legislatures are very powerful, a milligram or so of political influence seems to have altered the ecological balance to the extent that programs in family medicine seem to be working very effectively. One approach has been to separate out the training, directing it to one of the more peripheral "affiliates." This tends to create second class citizens who must be bussed back to the main hospital for conferences, grand rounds, and other activities. Another model advocates the building of a research base to provide some legitimacy for the poor bastards. This approach has its problems as well. For example, at UCLA, the GIMHSR, which sounds more like a disability than an academic effort, houses the Clinical Scholars, the Health Services Research Center, and the residency program in general internal medicine. The first two are the justification, perhaps, for the third in terms of maintaining our credibility.

"Efforts to enhance physicians' satisfaction with primary care must actively involve medical schools."



Despite the particular method it seems that the end may be escaping us. We may not be training primary care practitioners who can meet the needs of others, because they are meeting their own. Recent studies have suggested that a significant proportion of those trained in "general anything" have returned to subspecialty training within a few years of completing their residencies. For example, the paper by Wechsler et al in the *New England Journal* (Jan. 5, 1978) reveals that five years after completion of training in family medicine, general internal medicine, and general pediatrics in Massachusetts a majority of physicians had defected to a subspecialty. Similar data from UCLA were the principal stimulus for the creation of the Division of General Internal Medicine and Health Services Research five years ago. If we have trouble preparing bright people for careers that they apparently find unsatisfying, is it the nature of the work, or the structure of the training programs, or the reinforcements in our system that pay a subspecialist more than a generalist to do the same procedure, especially in an urban setting?

There are some little cited data suggesting that in recent years some physicians have come to view medicine as secondary to life itself — rather than the principal reason for existing. I suspect that this philosophy was not extremely prevalent among HMS '53, at least not until fairly recently. A survey of all practicing physicians in the state of Kansas in the late 1960s indicated that among those over forty years of age, having "sufficient leisure time" had the lowest priority of ten characteristics describing an "ideal practice." Conversely, among physicians under thirty-five this attribute was second in importance only to "being one's own boss." A recent survey of residents by Rebecca Anwar concurred: a vast majority stated that their medical careers are secondary to other goals in life.

It may seem bizarre (but consistent with American values) that we should be concerned with the quality of working life for an elite professional group such as physicians. We cannot, however, ignore the high costs of education and losses due to turnover, as well as the possible impact of apathy on quality.

Ways to meet the need to live a life outside medicine, and also to find work satisfying must be developed, if primary care encounters are to continue to occur in the numbers needed. One answer may be organized group practices. I suspect that this and other forms of bureaucratic or institutional based practice will become more prevalent, not because of governmental incentives but rather because of physicians' movement toward a reduction of work hours and effort. Restructuring the work of physicians may be inevitable so that *all of us*, not just some of us, can find our work to be more than a source of money, or a place to go to get away from home.

The definitive authority on work, Studs Terkel, notes that work represents "a search for daily meaning, as well as daily bread. In short, for a sort of life, rather than a Monday through Friday sort of dying. Perhaps immortality, too, is a part of the quest, to be remembered was the wish, spoken — unspoken, of those heroes and heroines who contributed to this book . . . In all instances there dangles the pertinent question, ought there not to be an increment earned, though not yet received from one's daily work — an acknowledgment of man's being?"

I suspect that some of us believe that efforts to enhance physicians' satisfaction with work in primary care and in its restructuring must actively involve medical schools. We are currently struggling with this problem along with the Graduate School of Management at UCLA in an attempt to apply that which has been done in Sweden to Volvo assembly lines, to the business of primary care. We must help in, or at least be understanding of, our students' search for a meaningful existence, as well as for knowledge, truth, and a lifetime of learning. Harvard Medical School and its faculty, to whom all of us are indebted, will, I hope, provide leadership in this search to improve the quality of life in medicine — especially for those who primarily care.

Charles E. Lewis '53 holds the tripartite title of professor of medicine, public health, and nursing at the UCLA School of Health Sciences. He is a leading author on the role of allied health personnel in medicine.

*The equation of one part Harvard, one part MIT,
one part hope, and one part perseverance has yielded
the Harvard-MIT Division of Health Sciences and Technology*

Partners across the river

by Irving M. London

The Harvard-MIT Division of Health Sciences and Technology is the product of the evolutionary development of collaboration, beginning early in this century, between Harvard Medical School and the Massachusetts Institute of Technology. In 1912, under the leadership of Milton Rosenau and George Whipple of Harvard Medical School, and William Sedgwick of MIT, the two universities established the Harvard-MIT School for Public Health Officers, a school which flourished for ten years and then became the Harvard School of Public Health. After World War II there was a marked increase in collaborative research involving especially physicists and engineers of MIT and physicians and surgeons in the Harvard teaching hospitals. An important example of such research was the earliest use of radioiodine in diagnosis and treatment of thyroid disorders by Robley Evans of MIT and Jacob Lerman and James Howard Means of the Massachusetts General Hospital.

In 1966 there was a significant acceleration of the pace of interaction when Dr. James Shannon, then director of the National Institutes of Health, urged that MIT establish a medical school based on its strengths in the natural sciences and engineering, and indicated that the NIH would provide support of at least fifty million dollars toward this objective. In 1966 this was an extraordinarily tempting proposal. Howard Johnson, the newly elected president of MIT and Jerome Wiesner, the provost, explored this possibility and concluded that MIT

should not seek to establish a medical school. It was clear, however, that there was strong interest among faculty members in engaging in medical education and research and in increasing MIT's already significant strengths in the life sciences.

At the same time at Harvard Medical School, faculty members, especially David Rutstein, were emphasizing the importance of bringing to medical care, research, and education the strengths of engineering and the physical sciences. Dr. Robert Ebert, the new dean at the Medical School, recognized the merit of this suggestion and sought the help and advice of Jerome Wiesner. It appeared to them and to President

Pusey of Harvard and President Johnson of MIT that it would be desirable to explore in depth the opportunities for mutual efforts of the two universities in education, research, and health care. Accordingly, beginning in January 1967, a Joint Committee spent two years exploring the wide range of possibilities for productive cooperation and then enthusiastically recommended the formation of a Planning Committee charged with the development of a detailed design. The Planning Committee stated that the objectives were to realize the benefits of science and technology in relation to human health needs by the joint application of the complementary resources of the two universities.



A central theme was the recognition that the advancement of scientific education and research is essential to progress in the maintenance and restoration of health and in the diagnosis and treatment of illness. Such a truism becomes meaningful at a time when an opposite anti-intellectual view has gained support in some medical schools. Stated simply, our Planning Committee held that the need was for more science, not less. Another principal theme was the realization that solving important problems of health often requires the concerns and competences not only of the biological sciences and the medical professions, but also of other disciplines and professions such as the social and behavioral sciences, engineering and the physical sciences, management, public administration, and law. Therefore, not only more science but more kinds of science are needed.

The Planning Committee proposed the establishment of a joint university institution designed to promote the productive interaction of biology and medicine with these other scientific disciplines and professions and to integrate education for health and medicine into general university education. This proposal, adopted by the Faculty of Medicine and the Faculty of Public Health at Harvard and by the Faculty of MIT, was endorsed by the Corporations of the two universities in the spring of 1970. There was agreement that new funds should be raised to support this enterprise and that in the meantime the collaboration would be formally established as the Harvard-MIT Program in Health Sciences and Technology. I should like to provide a report on the progress that has been achieved during the past eight years.

A new curriculum in the biomedical sciences leading to the M.D. degree awarded by Harvard Medical School has been evolved. It attempts to develop the interface of medicine with the natural sciences and engineering and to foster an informed understanding of the social and human implications of health activities. It seeks to afford curricular flexibility and richly diversified educational opportunities that are appropriate to the interests, talents, and aspirations of each student, and it is designed to promote continuity

and coherence in the educational experience. The program is oriented toward students with a strong interest and background in quantitative science, especially in biology, physics, engineering, and chemistry. The innovative courses in human biology represent the joint efforts of life scientists, physicians, physical scientists, and engineers selected from the faculties of both universities, and the courses are presented at both schools.

Twenty-five students are admitted each year as candidates for the M.D. degree. They are selected by an Admissions Committee composed of faculty members from both Harvard and MIT, which serves as a subcommittee of the Admissions Committee of the Medical School. During the past few years, there have been approximately 400-450 applicants for the twenty-five positions. The records of accomplishment of the successful applicants, and of a large number of those who are not admitted, are quite remarkable. Approximately half of the students come from Harvard College and MIT; the rest from other universities throughout the country.

Each student is encouraged to pursue advanced study in areas of his or her interest that may complement the courses offered in this curriculum. Such study may be undertaken as part of the curriculum leading to the M.D. degree or may be pursued in a combined M.D.-master's degree or M.D.-Ph.D. degree program. All of the students are expected to engage in independent study under the supervision of one or more faculty tutors, and to write a thesis based on laboratory research, clinical investigation, and critical analysis of a significant medical problem approved by the faculty tutors. Currently, of approximately one hundred students in residence, thirty are enrolled as candidates for both the Ph.D. and M.D. degrees. The fields of graduate study include the various biological and medical sciences as well as applied mathematics, physics, various branches of engineering, biological anthropology, economics, and the history of science.

These students take the clinical clerkships along with their classmates in the regular medical curriculum. Our experience to date has shown that on the

"Not only more science but more kinds of science are needed."



whole these students have excelled not only in the basic medical sciences and related disciplines, but also in clinical medicine. They have been highly successful in the competition for excellent internship and residency positions as well as for various post-doctoral research fellowships. Although it is too soon to have definitive information on the career paths which these students will follow, it appears that a large proportion is headed for academic clinical medicine, the basic medical sciences, and family care and primary care programs.

The second major educational program leads to a Ph.D. or D.Sc. degree in medical engineering or medical physics, and is under the direction of professor Ernest Cravalho. This program, which begins in September, has the objective of educating individuals who will be well qualified as engineers or physicists, have an extensive knowledge of human biology and medicine, and be prepared to engage in clinical investigation on important medical problems. They will contribute to the profession of medical engineering and medical physics, focusing on the application of science and technology to clinical medicine and the organization and provision of health services. The curriculum will be a five year program. During the first two years, students will complete the requirements for a master's degree in physics or engineering and also take a large proportion of the preclinical courses offered in the curriculum leading to the M.D. degree. In the third year they will be engaged in four clinical experiences, a required one in medicine, with the other three to be selected from a number of clinical opportunities in various fields. They will participate in both patient care and clinical research under the supervision of teams of physicians or surgeons and engineers or physicists. At the end of the third year they will begin doctoral research under the supervision of Harvard and MIT faculty members. This research will normally be completed by the end of the fifth year.

Approximately ten students are going to be admitted each year, and we are optimistic that the program will attract individuals of the highest quality and that they will make important contributions to the solution of major clinical prob-



lems both as engineers or physicists and as knowledgeable medical scientists. We hope, too, that a significant aspect of their training will be the ability to evaluate the consequences of technologic intervention so that the applications of science and technology to health needs will be judiciously determined.

A companion educational program, directed by Professor Laurence R. Young is interdepartmental and leads to a doctoral degree in biomedical engineering. Its emphasis on the basic life sciences is considerably greater than that found in bioengineering programs in departments of engineering. Twelve students are currently enrolled as doctoral candidates. A fourth program in medical radiological physics concentrates on education and training in the physics of radiation therapy, diagnostic radiology, and nuclear medicine, and leads to a doctoral degree at MIT or at the Harvard School of Public Health. The directors are professors Bengt Bjargard, Gordon L. Brownell and Edward W. Webster.

These various educational programs have brought forth forty new courses, among them functional anatomy of man, quantitative physiology, the full range of pathophysiology, the human nervous system, the molecular basis of clinical disorders, ethics and decision making in medicine, and the economics of health care. In addition, a sequence

of rigorous courses in physics with illustrations from biology and medicine has been successfully introduced for undergraduates at MIT.

In the field of research we have focused on major health problems that are especially suited to the complementary strengths and talents of faculty members and students. Multidisciplinary investigative programs, many engaging thirty or more faculty members, have been established in the fields of biomaterials and thromboresistent materials, the study of metabolic disorders with new nuclear techniques, and the enhancement of dose distribution in radiation therapy of cancer. A Rehabilitation Engineering Center for patients with various musculoskeletal disorders has been created at both Children's Hospital Medical Center and MIT under the leadership of Drs. William Berenberg, Melvin Glimcher, and Robert Mann. A national center for clinical instrumentation based on new microprocessor technology has been established and is being administered by Dr. Roger Mark. The most recent of these research programs is that concerned with the health effects of fossil fuel combustion and utilization, a subject of great importance as the search for new sources of energy turns increasingly to coal. This program, led by Professors Gerald Wogan and Jean Louis, seeks to determine the biological effects of the products of various methods of combustion in order to guide the technology, minimizing en-

vironmental health hazards. Currently under development is a program of research on learning disabilities in children that will join pediatricians, neurologists, physiologic psychologists, and linguists. In this undertaking we hope to develop an understanding of these disorders — which are extraordinarily prevalent in our society and involve at least ten per cent of our school children — leading to effective diagnostic methods, preventive measures, and successful therapeutic intervention.

Having demonstrated that two autonomous universities can join productively in common educational and research efforts, and with some success in raising endowment and operating funds, the respective Corporations have institutionalized the Program in Health Sciences and Technology as the Harvard-MIT Division, which cuts across departmental and school lines. Its governing board is composed of both presidents and two corporation members of each university. Its principal policy making group is the joint faculty committee composed of senior faculty members of Harvard Medical School, the Faculty of Arts and Sciences, the Faculty of Public Health, and MIT. An administrative council composed of the deans of the relevant faculties is the liaison in promoting efficient utilization of human and physical resources. Approximately one hundred faculty members hold joint appointments.

With the establishment of the Harvard-MIT Division, MIT has now taken the additional step of organizing within its faculty the Whitaker College of Health Sciences, Technology, and Management. This college is designed to provide an academic focus for the extensive health-related activities at MIT, which interestingly equal approximately one-third of the total research effort. Whitaker College will encompass the MIT components of the Harvard-MIT Division and will also include educational and research programs in human genetics, behavioral biology, environmental biology and toxicology, human physiology and experimental medicine, and health care policy and management. The closest integration of the Harvard-MIT Division and Whitaker College will be achieved.

Finally, a word on experimentation in medical education. When the experiment involves joining two large, complex, and successful universities with rather different traditions and lifestyles, the challenges are many. Successful institutions are often justifiably conservative and resistant to change. We have been most fortunate during the past twelve years that the leadership has been creative and supportive of this new enterprise. President Johnson and President Wiesner of MIT, President Derek Bok, Professor Walter Rosenblith, the Provost of MIT, Dean Robert Ebert of Harvard Medical School and his associates Henry Meadow and Dr. Robert Blacklow, Dr. Eleanor Shore, assistant to President Bok, and now our new Dean, Daniel Tosteson and his associates, Drs. Daniel Federman and James Adelstein have provided and continue to provide a climate conducive to successful innovation. The enthusiastic participation of faculty members who are willing to assume the heavy responsibility of promoting these interdisciplinary educational and research programs has been crucial. In this effort, Dr. Walter Abelmann who serves as chairman of the Board of Tutors and co-chairman of the Curriculum Committee, Herman Eisen, who is chairman of the Admissions Commit-

tee and co-chairman of the Curriculum Committee, and Ernest Cravalho who is associate director for medical engineering and medical physics have been especially productive. And then of course the students, gifted and talented as they are, have been a constructive force in curriculum development.

The further evolution of current programs, the interface with the social and behavioral sciences, and the development of educational offerings in human biology for undergraduates and graduate students at Harvard College and MIT are part of the agenda that has been drawn up for the years ahead.

Described by Dr. Federman as "the champion" of the Harvard-MIT Division of Health Sciences and Technology, Irving M. London '43A is professor of medicine and director of "what has become a beautiful departure for Harvard." Dr. London took part in the establishment of the Albert Einstein College of Medicine and served as chairman and professor, department of medicine from 1955 to 1968.



On teaching students and residents not to believe what you've taught them

by Norman Geschwind

I am taking as my major theme a quotation from one of the essays of Francis Bacon. Sir Francis was, as most of you will recall, the Lord Chancellor of England, a position of some importance midway between the chief resident at the Boston Lying-In and Henry Meadow, that distinguished associate dean who has held as many titles as Pooh-Bah. He was really not a great scientist, although he certainly had the true spirit of the researcher — he died of an infection contracted while testing the preservative capacities of snow. He was probably one of the first governmental administrators to concern himself with research and to predict clearly the coming revolution in science.

Nonetheless, he is remembered best as a great coiner of phrases. Some of Bacon's observations even bear on our teaching of medical students and residents. In his essay "Of Studies" what strikes us first is that he does not treat studies as an academic occupation, but as the continuing activity of educated men carried on by themselves long after their school days have passed — an implicit view that all of us in medicine have shared for a long time. Many of his aphorisms remind us vividly of those rules that we were all taught, as we started to go on the wards, by the great clinicians of an earlier period.

Bacon said writing makes an exact man, conference makes a ready man, and reading makes a full man. As we

started to take histories and to write down our findings on patients we can all remember some commanding figure at the bedside saying, "If you do not write it down, it never happened. If you do not write your opinion down on what the patient has you will never know that you are wrong. As a result, you will learn nothing from the case since you will certainly be wrong."

His second statement is equally evocative: conference makes a ready man. I am sure we all recall those terrible first moments when we had to stand on our feet and present the case, not looking at our notes. We were supposed to have it all at our fingertips, the lab data and every part of the history — and we were told that this was of great importance not merely because it would impress the professor at the conference, but because this would make a difference to the way we practiced medicine when dealing with emergencies in the middle of the night. After all, no one wanted to hang around in the emergency ward at 3 A.M. while we leafed through our notes.

Bacon's intention was clear enough in these first two aphorisms, but it is the third that must give us pause (and which will lead indirectly to the topic of the title). Reading, he tells us, makes a full man. A pretty phrase, but we suddenly realize, sadly incomplete. Reading makes a full man, but we must ask "Full of what?" Unfortunately the image aroused here is not totally pleasurable.

Do we mean full of those thousands of pearls, real or artificial, that so many of us spent so many hours extracting from endless rows of bound journals, or from the utterances of our teachers? "There are seven causes of the sudden appearance of new murmurs." "Think of hidden gram-negative infection in a febrile patient with sudden episodes of shock." "Hypokalemic periodic paralysis accompanying thyrotoxicosis is much more frequent in orientals than in westerners." And one which has stuck in my mind ever since my first year at Harvard Medical School, "Gout affects only the human and the Dalmatian coachhound."

The problem we have come on here is one that lies at the root of a major shortcoming of medical education, both preclinical and clinical. The difficulty does not lie in the sheer acquisition of all of those pieces of information. Indeed, the pearl should be a beautifully structured secretion. At its best it is short, easily remembered, and important. What it lacks in importance it may compensate for by its amusing or exotic character. I remember a marvelous article in *The Proceedings of the Royal Society of Medicine* on inflammable gases from the gastrointestinal tract. I was totally perplexed that an English otolaryngologist had collected some ten cases until I found out that when the Englishman belches he does not let it come out through his mouth because it is indelicate; rather he lets it out discretely through his nose. If

at that moment he happens to be lighting a cigarette he suddenly looks like a dragon. That pearl is too beautiful to throw away.

The difficulty is not with the pearl itself. We all have our own collections. The problem is that medical education — from day one in the amphitheater to the last day of the residency — tends somehow to stress the isolated fact, either preclinical or clinical, at the expense of what could best be called critical intelligence, that faculty which leads us to accept or, more important, to reject what we have been taught or will find in the literature in later years.

It is astonishing that many people are totally unaware of the existence of this particular ability. They think that the only quality that makes a good scientist, a good physician, or a good family doctor is the possession of enormous amounts of isolated facts. There is very little sense in many people's minds that the issue of knowing what to believe is a major one, particularly in the face of vast quantities of information. I recall in the 1950s saying about one of my neurological teachers that he was the most critical reader of the literature I had ever known. The automatic response was that he must have been very well read. But this response reflected a major and common misunderstanding. There were people who were better read than he, who could quote more papers, who remembered more facts, but none of them had his quality of being able to separate the wheat from the chaff and realize that certain facts were important, and others not.

There is also a cherished notion that disputes can be resolved only by accumulation of data. It is not rare for a review article to conclude that the literature is divided as to the usefulness of some medical or surgical procedure. One might at first think that there is a series of equally good studies that have come up with different conclusions. But in many instances, one discovers after reading all of the papers that some of them were not worth mentioning except to point out how terrible they were.



Yet glaring errors in reasoning can go totally unremarked for years. In my own work I was appalled to find that the author of a famous book, which had influenced thinking on aphasia for over thirty years, had grossly contradicted himself in two different crucial chapters. Although this should have discredited most of his conclusions, it had simply gone unnoticed despite the fact that this book was cited in hundreds of references.

More recently, I came across a paper published ten years ago in one of the major American medical journals on a large cooperative study of a group of patients treated by a common surgical procedure. When I finally had the occasion with a couple of my colleagues to read it critically, we discovered to our amazement that this paper had not included the operative complications as part of the results of the surgically treated group, which in fact did worse than the other group when they were included.

This study, by the way, got past the editorial board. It was a study that came from several large and distinguished medical centers, and is repeatedly quoted in the literature. One would have expected it to have been discredited within a year of its publication.

The reasons for stressing critical analysis are clear. The physician is constantly faced with the need to accept or reject new methods of treatment. If he or she is incapable of applying individual judgment, the alternative is to accept that of the authorities. The authorities may well be teachers, they may also be the Physicians' Desk Reference, or the handouts from the drug companies. One may be even as uncritical in selecting authorities as in reading papers.

Judgments, of course, can entail subjecting patients to procedures that may be dangerous, painful, or expensive. A highly critical neurosurgical friend of mine told me that one of his world-famous teachers had taught him that one should always plan to do total removals of acoustic neuromas because they had a lower mortality than partial removals. Furthermore, his teacher was able to buttress this by referring to several series in the literature that showed a lower mortality for total removals. My friend thought this was curious until one day in the operating room with his teacher, he realized with a shock why it was true.

This surgeon was saying, "Of course we will attempt a total removal because it has a lower mortality." When he pushed a little too hard on the brain stem, the anesthesiologist said the blood pressure had disappeared. At this point he said, "I think we had better get out." My friend suddenly realized that the only partial removals were those cases in which they could not finish the operation to do a total removal. Yet there are many people all over the world who will tell you that they will do total removals of acoustic neuromas because they are safer for the patient, unaware of this elementary error.

We should, furthermore, not fall into another trap. One does not think critically simply by quoting statistics. Statistics may be necessary, but they are not a substitute for thought. The Devil can not only quote Scripture to his purpose, but can invoke the chi square and analysis of variance from the vast depths of his computers as well.

There is a story probably known to many of you about a medical school dean who announced at graduation, "I regret to tell you that half of what we have taught you is wrong. Unfortunately, we do not know which half." As apocryphal as that story undoubtedly is, it contains a large grain of truth. The reasons for the lack of critical faculty are important. There are many who will argue that it cannot be taught. But I disagree. We fail in not teaching it. There are teachers who used to say that not all medical students could be taught how to treat patients properly, that only certain kinds of personalities would know how to interact with patients or their families. The past twenty-five years have shown us that this kind of personal sensitivity can be transmitted. There are some teachers who will do it very well, and others poorly, as there are some students who will learn it readily and others not at all. But the same holds true for acid-base balance. It has taken a specific realization of the need for such sensitivity in medical practice to lead to a change in teaching habits.

There is another reason why the critical faculty is not taught: those who have it often make themselves unpopular, and most are not willing to do that. When Oliver Wendell Holmes indicated that it was a good idea to wash one's hands between the delivery of two babies, one would have thought that his colleagues were prepared to accept this. But, in fact, they were not. Holmes decided it was better to be popular than to keep up the battle, and unlike Semmelweis in Vienna, he simply gave up on that issue. It was not only his colleagues, by the way, with whom Holmes became unpopular; he was also unpopular with the medical students. Medical school is difficult enough for the students without one group of teachers telling them that the other group is wrong. Curiously enough, precisely those people who are most likely to be critical of dogma are the ones about whom the following speaker says, "Unlike Dr. So and So, I am not prepared to be dogmatic on this issue," which is usually the sign that you are going to get the conventional, unchanged wisdom.

As I look back on my own medical school career, I find that many of the teachers who at the time irritated us, turned out years later to be the ones who were right. Fortunately, they did not all go the way of Socrates; some of them have survived to be present in this audience and on this platform. Indeed, I should say that having selected this topic I was pleased to discover, I presume purely by chance, that the final speaker on this program would be Mark Altschule, who, perhaps more than anyone else, taught us provocatively not to believe what any of our teachers taught us, including himself. I realize only too clearly that it is risky to have him follow me since he may now show you why you should not believe what I have just told you.

Norman Geschwind '51, the James Jackson Putnam Professor of Neurology, was director of the neurological unit at Boston City Hospital from 1969 to 1975. For the past three years Dr. Geschwind, "one of the outstanding graduates of this school," according to Dr. Federman, has been neurologist in chief at the Beth Israel Hospital.

"The Devil can not only quote Scripture to his purpose, but can invoke the chi square as well."



A legacy of 1848

by Mark D. Altschule

The discussion I am about to present grew out of the book *Medicine at Harvard* that I helped Harry Beecher to write. After the dust had settled it became apparent that there were a couple of major issues that had not been covered in the history. These issues are important in our understanding of how we got here, how Harvard developed and how it changed. Why in the first place did Harvard pattern itself after the French school of medicine, when all the other medical schools then existing in this country had patterned themselves after Edinburgh? The second question, why, when all the other schools were adopting the contents of the Flexner Report did the Harvard Medical School totally ignore this report?

You might say that from the very beginning the Harvard Medical School went its own way. For example, before the Revolutionary War when New York, Philadelphia, Charleston were sending their people to Edinburgh for additional training, Boston didn't. There were sixteen prerevolutionary physicians who got part of their training abroad, twelve went to London, three went to Edinburgh and one went to both.

It is interesting to note that when our first faculty was formed in the 1780s, we did have one Edinburgh man — a doctor named Benjamin Waterhouse, a genius who turned out badly in that he was fired. As far as I know he was the only full professor of Harvard that ever



was fired. His activities within the small faculty were so disruptive that they got rid of him. It is true that the Harvard Medical School has had a professor who hanged. But being fired by Harvard is much worse than being hanged. When the School, after its birth, began to take form, it turned toward Paris for its example of how things should be done. The question is why?

The explanation of why French ideas of medical education became accepted here 150 years ago has never been definitely stated. This problem is not merely academic, since Harvard's greatness has its roots in that happening. I believe also that it was this French tradition that caused us, sixty years ago, to ignore the Flexner Report and to refuse to be seduced, until a couple of decades ago, by the financial gains to be made by changing from our traditional patient oriented medical education to the basic science theory oriented medical education that now prevails.

We have to explain why, for instance, James Jackson sent his son to study in Paris with Louis; why Oliver Wendell Holmes, after graduating here, went to Edinburgh for only a year and then to France for two; why John Collins Warren went to France for his training. Was it because France was popular in New England for cultural and political reasons? No. This is completely opposite to the facts.

In fact, culturally New England was still tied to Old England. In addition, both were in the process of developing strong affinities with Germany. German poets and philosophers were widely read, prominent Harvard literary figures studied in Germany, and English writers, such as Coleridge and later Carlyle, who wrote and thought in the manner of Germans, were among the most popular.

If German ideas were so highly regarded in New England, why did not the young physicians go to Germany for training? The answer to that question is that German medicine then was probably the worst in Europe. French medicine was the best.

Up until the time of Sydenham in the mid-seventeenth century, medicine was taught out of books. These books were a thousand or more years old, full of errors. In thinking back over that period, I am forced to conclude that the only reason that the population of the world survived at all was that medical care was available to very few. When Sydenham did his great work he brought forth two new concepts. One was that medicine should be learned at the bedside, from the patient, and the other was the concept of specific diseases. Before then, the doctors thought of patients as people who had their humors congealed or thinned out or mixed in the wrong way. Sydenham said no, there are certain diseases with certain characteristics and they should be treated as such. These two ideas were new for the time and immediately were accepted in some quarters and not in others. Leiden, for example, in the Netherlands took these ideas to heart and developed them to become the greatest medical school of its time.

The ideas spread from there in sometimes curious ways. The leading man in the early 1700s at Leiden was Boerhaave. When he passed on, the next in line was van Swieten, who was not acceptable. Maria Theresa bought the entire faculty of the medical school at Leiden and moved them to Vienna, and consequently Vienna became a great medical school, and Leiden declined, its specific tradition being kept alive for over a century mainly in Edinburgh. Despite the fact that things were not going very well in France (due to the French Revolution), they instituted planned ward rounds that usually began at dawn and went on for several hours, followed by lectures, demonstrations, operations.

Suddenly, a number of events occurred in France outdoing even Leiden and Vienna. A Viennese physician named Auenbrugger had described percussion. He was an interesting fellow who

had collaborated on a number of operas and knew all about music, and so percussion came naturally to him. It was taken up enthusiastically by the French. Another thing that happened, of course, was that Laennec discovered the stethoscope and he wrote extensively about the lungs, how to examine them, and the diseases that might occur. In addition to the bedside medicine that was spreading through Europe — and the postmortem medicine that had spread — there suddenly came a new dimension in physical examination — percussion and auscultation. Rouanet and Savard and one of our earlier graduates, Austin Flint, all helped to develop the use of the stethoscope in examining the heart. By the time Oliver Wendell Holmes and John Collins Warren were ready to go abroad for study, the only place to go was Paris. It was the greatest in the world.

We have at Harvard the notebooks of Holmes and Warren, written in French, describing the courses they took in Paris. Most interesting and still not explainable is that numerically there were far more people from New York and Charleston and Philadelphia going to Paris, but they did not bring back the Parisian medicine. The Harvard Medical School patterned itself after what Paris was teaching. French clinical medicine acquired a unique distinction when a fellow named Gabriel Andral introduced systematic microscopic studies of blood and urine, and chemical studies of the blood, into bedside medicine. His name is not prominent in medical history because he made no sensational scientific discoveries, although he is sometimes mentioned as the founder of hematology. I believe he should be called the father of clinical pathology. Holmes and other Bostonians studied with him and brought French medicine, including the use of the microscope, back to Boston. That was how Harvard became a French medical school, with everything patient oriented.

What was happening in Germany at that time? Nothing much, unfortunately. The German medicine was very much under the influence of philosophical systems. They had something called nature philosophy, which I shall not describe to you because it is untranslatable and unintelligible in German. It

“Many German physicians could never get over wanting to learn the secrets of life, and they hoped that the microscope would reveal them.”





lasted for about twenty years and completely stultified German medicine. Students were not allowed to examine patients, and auscultation and percussion were either ignored or else derided as the "trombone and anvil school." The graduates of German medical schools, if outstanding, often went into something other than medicine, for example, Schiller in poetry and the development of free association, Louis Agassiz as a professor of natural history at Harvard, and von Graefe, Diefenbach, and Stommeyer as Army surgeons. Nature philosophy was gotten rid of and another equally puzzling system came in called the natural history medicine, whereby its proponents tried to show that diseases were actually much like plants. It didn't work.

We now reach the period close to 1848, a revolutionary time when new ideas were circulating. German students were among the major catalysts of the revolution, and some of them demanded changes in the teaching of medicine. In Berlin three young physiologists came forward with the idea that all of medicine was really a branch of basic science. These men were Helmholtz, Brücke, DuBois-Reymond, who was a transplanted Frenchman. They wrote some lucid and energetically worded papers and immediately became leaders of a movement, which arrogantly they called "rational medicine." That was a good name because it implied that anybody who did not believe in it must be irrational. They twisted things a

little bit saying that French medicine with its insistence on postmortems naturally implied the uselessness of therapeutic efforts. Instead they would use the basic sciences — specifically physics and chemistry — to make treatment much more effective.

One reason for the success of the movement was the therapeutic nihilism engendered by the French-Viennese approach. Another was the disappointment with the microscope then prevalent in German medicine. Many German physicians could never get over wanting to learn the secrets of life, and they hoped that the microscope would reveal them. Instead it showed living things to be even more confusingly complex than they had dreamed, and so they turned against it in favor of the simple mechanisms revealed by the techniques of physics. Actually, of the original Berlin trio, only Helmholtz fulfilled the promise, and he became a professor of physics. Within a short time one of their colleagues named Wunderlich became professor of medicine at Leipzig not because he was a good doctor, but because he wrote a wonderful treatise on temperature regulation.

Moreover, the paucity of applicable physico-chemical data encouraged theorizing about medicine. William James (HMS 1869) who had spent 1867 and 1868 in Germany studying the physiology of the central nervous system, commented on the manner in which German scholars brought into a discussion everything in the universe —

and outside — except the point at issue. He believed that the German language encouraged speculation and that obscurity of style was often substituted for profundity of thought. The German belief that clinical medicine had to be an outgrowth of science actually resulted late in the nineteenth century in the adopting of scientific techniques to study clinical conditions. The concept of the primacy of the laboratory nevertheless persisted, and German medicine became permeated with dogmatic theories and noisy polemics.

It is not to be believed that all German doctors favored this idea because a good many did not — Naunyn said that medicine is still to be learned and taught at the bedside. But for the most part, the academic world in Germany accepted the dogma of rational medicine. One of its chief proponents was Rudolf Virchow who was undoubtedly a great pathologist, but he was a very dogmatic man and made many errors. One of the most egregious was to say that medicine was an experimental science and that what happened in the clinic was but a minor and inconsequential manifestation of it. That was a terrible thing to say and he said it repeatedly. Unfortunately a great number of Americans went there to study and some of them returned convinced that basic science was the most important part of medicine. Here we come to a matter of semantics. The French developed these sciences just as well but they never called them the basic sciences. They called them the accessory sciences, and they agreed, as we all do, that advances in physiology and chemistry — some of them at least — may prove to be quite valuable.

One of the men who was greatly influenced by Virchow was Welch, who became professor of pathology at Johns Hopkins. He was an inferior pathologist. He also tried his hand at publishing a medical journal, the *Journal of Experimental Medicine*, but had to give it up as it was done poorly. Having been not very good in his profession and having failed as a medical editor there was very little left for him to do. He was not offered a deanship anywhere, so he had to set himself up as a medical reformer; he became emphatic in what he believed. He carried forward Virchow's ideas.

About that time Frederick Gates, who was a great friend of Mr. Rockefeller and influenced his giving greatly, read Osler's textbook. Horrified that there were only four diseases in it that were curable, he announced his intention to reform medicine (and the law too). He was a friend of Abraham Flexner, who also greatly admired the German Ph.D. system, and got him to make a survey, which originally was supposed to be a reform of both the law and medicine; the lawyers would have nothing to do with it, so that was dropped.

When it came to reforming medicine we must remember that Eliot, when he was president around 1870, did reform the Harvard Medical School. It was not merely an intramural study, and it received wide dissemination for a curious reason. An undergraduate at Harvard College named Harvey Wiley, who later became famous for the food and drug laws, heard Eliot and six or eight years later when it came time for him to give a commencement address at some medical school he said exactly the same thing and was widely published.

Around 1900 the AMA also began talking about reform and making a number of studies. When Flexner began his work, he joined the AMA group. For a while it looked as if they were going to work together, but they soon broke apart. Nevertheless, six or eight years later he published his report — part of it the AMA document, a fact which he omitted to mention. Everything he was saying was eagerly accepted elsewhere. He came up to Harvard and the only comment I can find is simply one word, "friction." We did not accept the Flexner Report and the money that was available with it. We did not accept the idea of full-time clinicians who would see only those patients who came into their hospitals. In fact that system has had adverse effects on medical practice because it created specialists based on some gadget rather than on clinical quality. A specialist today is a person who knows about certain tests, and that of course is not very healthy. Nevertheless, the idea that medicine can exist only as a superstructure on basic science has persisted. Now almost all medicine in this country, including our own, is distorted by excessive and unjustified dependence on the laboratory.

When the laboratory came to displace, to a great extent, the personal interaction that constitutes clinical medicine, at once an enormous epidemic arose in this country. I don't believe the epidemiologists know about it. The disease is called Schwörbeldörfer's disease and its manifestations are as follows:

- The history is vague and changeable suggesting several different diseases or none at all;
- the physical findings are not definitely abnormal;
- the x-ray findings are ambiguous and must be repeated many times at considerable expense;
- the laboratory findings are borderline and must be repeated frequently at considerable expense;
- the disease is not fatal unless the patient dies of a diagnostic procedure. Many patients develop anemia (Schwörbeldörfer's anemia) and require blood transfusions;
- the disease is customarily treated with large numbers of expensive medications, all of which counteract one another, except insofar as they produce side effects, which multiply and must be treated with still other medications; and
- its cause is unknown, but the precipitating factor is the so-called scientific medicine in which the laboratory is the master and not the servant of clinical practice;

What about Schwörbeldörfer? It was the genius of my late classmate John Gibson '32 who found the writings or perhaps imagined them and gave them to us. Regardless of the source of the syndrome, I am sure that you will all recognize cases of it, if not among your own practice, certainly among the practices of your colleagues.

The history of medicine tells us that the same diseases occur now as occurred in years past. I've found what I think is the earliest recorded case of Schwörbeldörfer's disease. It occurs in the fifth chapter, twenty-fifth verse of the Gospel according to Mark: "And a certain woman . . . had suffered many things of many physicians, and had spent all that she had, and was nothing bettered, but rather grew worse." Only a miracle by Jesus cured her. I hope that we do not have to fall back on that — that we can

cure patients by more mundane means, currently likely to be overlooked.

We must be forever grateful to Schwörbeldörfer for having rediscovered the disease, and to John Gibson for having discovered Schwörbeldörfer. Long live the memory of Ligneus Ersatz Schwörbeldörfer! Long live the memory of John Gibson!

My classmate and dear friend was much given to the creation of aphorisms. They all say something along these lines: if so-and-so and so-and-so then look out! We can say, in a similar vein, when medicine becomes depersonalized and unbearably expensive, when patient oriented medicine is replaced by laboratory oriented medicine, look out!



Mark D. Altschule '32 has been on the Harvard faculty "for a long time" and in 1971 he became clinical professor of medicine. On July 1, 1978 his five-year appointment as visiting professor of medicine ended. Remarked Dr. Federman, "Generations of Harvard students have visited him with great profit, great stimulus, and great pride." He is president of the Boston Medical Library and honorary curator of prints and photographic collections in the Countway Library.

Reunion Reports

1923

The Class of 1923 began its fifty-fifth reunion on the Quadrangle. After hearing the most interesting and enlightening lectures in the morning, we had our class photograph taken, this time with our wives or daughters who attended us. We then enjoyed the delicacies provided at The Spread, met old acquaintances and exchanged our news. In the evening we reconvened in the Aesculapian Room at the Harvard Club, where we continued our "catching-up" and partook of a delicious dinner. Jim White, our president, had a strenuous and conflicting schedule — he had to attend the James C. White Lectureship in Worcester. We were delighted when he made it to the dinner after all. After introductory comments, and a short reading of the obituaries by yours truly, Jim called on Shields Warren for the evening's talk. No one is better qualified to speak on: "The fact and fiction of the hazards of nuclear radiation fallout in special reference to the risks to those exposed in industry and in general to the risks which might involve the public." His remarks did much to dispel the fears and anxieties that we have acquired through exposure to antinuclear fallout!

We wish that you who could not join us had been able to come to this reunion. We missed you and hope that we will be around in '83 to greet you at our sixtieth.

Robert L. Goodale



listened to a succession of unfailingly witty and provocative speakers. I, for one, much enjoyed finding at the Countway Library the collection of books and papers published by members of our class, which had been collated by Roger Baker and arranged with care by Mr. Robin LeSueur, the new Countway Librarian.

We met Friday evening at the Somerset Club, thirty-six strong. It was good to see some of the classmates who had come from afar, like Gaylord Bates, John Talbott, Roger Baker, Ted Klumpp, and others. We sat in a large

circle on "The Bricks" in the evening sunshine. After dinner, one of our professors in 1928, Dr. Joseph T. Wearn, regaled us with reminiscences of the Thorndike, finishing off with a story that sent us away laughing.

A smaller number of us gathered on Saturday noon at The Country Club for luncheon. It was pleasant to look off over the green fairways, to sit down together again, and to hope that five years hence we may have another happy meeting.

Myles P. Baker

1928

Thirty-three members of the Class of 1928 returned for our fiftieth reunion, registered and attended Alumni Day exercises — featuring Daniel Toston's first appearance as Dean — and



1933

Thirty-eight members and twenty-eight wives gathered on June 2 to celebrate our forty-fifth reunion. The large attendance was highlighted by Seiriol Williams, who came all the way from Vancouver Island, British Columbia; Hall Seely, from Roseburg, Oregon, and others from lesser distances. We missed our most distinguished classmate, Bert Dunphy, recipient that Friday of an honorary degree from Georgetown University. It was his moving "Annual Discourse" before the Massachusetts Medical Society "On Caring for the Patient with Cancer," which the Class of 1933 had published in a small booklet to be presented to future graduating classes at the Medical School.

The dinner on Friday evening at The Country Club was highlighted by remarks from the retiring president of the Alumni Association, Bart Quigley; from past Class President Bill Pitts; from the president of the American Retired Physicians Association, George Wheatley, an association to which we might all aspire; from Jack-of-all-medical-trades, Joe Lichty; from our highly respected adopted classmate, Hartwell Harrison; and from others. The delightful arrangements were made by our class treasurer, Carter Rowe, who showed slides of nostalgic events and personalities in our past professional lives. Interestingly enough, much discussion five years ago was concerned with the past and future of rendering medical care. Now, with the full realization of the impact of Federal involvement and with

an increasing list of retired members, there was a general expression of relief at being freed from the burdens of "paper work," "reports," "recertification," and a recognition that our generation has had the best of it.

On Saturday the class gathered in Lincoln where the Cannons had the great pleasure of welcoming fifty-eight guests for refreshments and a delicious luncheon. The day was comfortably cool and overcast, but with occasional bursts of sunlight. The company was in high spirits and the conversation was merry. An hour after the last guest had departed the heavens opened — typical Harvard good fortune!

Bradford Cannon

1938

Our fortieth reunion was just great. HMS put on its usual good show, very informative, with tongue in cheek humor. Predictions are for increased medical costs, doubling of population and a "glut" on the market of doctors, now being turned out like hot dogs.

The scientific seminars over, our class dinner on Thursday was held at the Downtown Harvard Club, which is on top of the State Street Bank. The weather was clear and the view spectacular: all the way up to Gloucester and down to Cohasset. A long session of preprandials and a fine dinner were culminated by bon mots from Drs. Arthur Hertig and Langdon Parsons, who put us in the proper frame of mind to enjoy Alumni Day and the luncheon.

Then we took off for the Chatham Bars Inn where the weather cooperated very nicely. Our committee made a great choice. We had beautiful lodgings, golf, tennis, delicious food, and a delightful bird watch, led by Dr. Norman Hill, HMS '45.

Suffice it to say that everything meshed together with no problems. For those who came, many thanks; for those who could not, we missed you. The reunion committee — consisting of the Ingersolls, the Hardys, the Lepreaus, the Kneisels, the Jewetts, the Sises and the



Yankauers — had a wonderful time planning the reunion, and we owe them our thanks for a job well done.

Those classmates who attended were F. Allen, Beach, Bengloff, Boger, Brown, Burbank, Cary, Chamberlin, Davis, Day, Dee, Epstein, Giddings, Hardy, Harrington, Ingersoll, Jewett, D. Johnson, H. Jones, Klopp, Kneisel, Kopans, Lake, Leighton, Lepreau, Lieberman, Lorimer, Mead, Migel, B. Moore, Oliver, Rumsey, Schumann, Sise, R. Smith, Strobino, Tatlock, Wilder, and Yankauer. Mrs. Robert Thomson and Mrs. Edwin Irons came to dinner. as guests of the class.

David E. Kopans

1943A

HMS 1943A had its thirty-fifth anniversary reunion as usual along with 1943B. Some of us attended the Scientific Symposium on Thursday. Many more, thirty-eight in all, mostly with wives, enjoyed a magnificent clambake hosted by John and Dot Brooks of '43B at their Weston estate.

Next day after a chilly but pleasant Alumni Day morning we motored to Woods Hole and thence to Edgartown. The Harborside Inn was pleasant, well organized, although jammed with three HMS classes (1958 too). We had lots of fun out-of-doors, beaching, bird watching, boating and especially visiting Joe Murray's Chappaquidick acres. Twenty-seven of our class and wives were there.

Seeing old friends and reviewing Richardson and Allen's class report brought forth repeated reflections on how well we all looked, how little changed, how well married, how productive as well as reproductive. There was little hint of passing years. Yet at average age sixty, it was clear that most of us will live to have our major hospital bills covered by Medicare.

It was a good reunion. Some people think it would be nice to have the next one in California. What do you think?

James H. Jackson



1943B

The thirty-fifth reunion of the Class of 1943B was a great success. Approximately thirty members of the class and their spouses returned for the celebration and combined their superb good humor and superb talents with the lesser characteristics of the Class of 1943A.

Many of our classmates attended the excellent scientific session on Thursday, and all of them gathered at the Brooks's house in Weston for a clambake Thursday evening. Many of us in the Class of 1943B were keen to have a 1943A versus 1943B softball game at the clambake. But 1943A members were reluctant to compete, citing age, general debility, and preference for

beverage activity. It is frightening to think that one year can make such a difference in a person's constitutional habitus.

The following morning was Alumni Day, lunch and then off to Wood's Hole to pick up the ferry to Martha's Vineyard. We had a successful two days there. The Harborside Inn was excellent. Many went by boat and jeep to visit Bobbie and Joe Murray's house on Cape Poge. Many went to the birding area, some bicycled, some went sailing some shared the hospitality of Nora and John Tuthill. The weather was good. A massive clambake on Saturday rounded out the weekend's activity and we gathered around the piano to sing old songs with Bud Minkler at the ivories. Sunday we recovered and slowly wended our way back home.





Statistics are meaningless and our class report shows a 22% failure to answer rate, but our class has its share of full professors among those answering (29). We have had some deans, too. Seventy percent have had or now have connection with academic institutions. And there are many, believe it or not, still caring for the patient in various clinical pursuits. Our class is spread out in all corners of the country: 24 come from Massachusetts, 15 from California, 13 from New York, 4 from Maine and Missouri, and the rest are scattered haphazardly among the other states. We had representatives at the reunion from all corners of the country, including: California, Vermont, Texas, Georgia and Illinois.

From the 78% answering, we find 331 offspring, resulting in 154 sons and 147 daughters. We find 46 children in medicine and 89 grandchildren all totaled.

Twenty-nine classmates are in surgery, with the rest in the other lesser disciplines of medicine. To think that there are presently only 17 or 18 members of each graduating class of 160 going into surgery!

Although we missed those 16 class members who have died, we derived emotional strength from the enthusiasm of those who are still working in the various vineyards, some of whom came back to have a very happy reunion.

John R. Brooks

1948

The reunion began on Thursday night, when about sixty of HMS '48 gathered at the new Harvard Club atop the State Street Bank for a fine dinner and renewing of old friendships. On Friday, after the events on the Quadrangle, forty-five of us decamped to the Nantucket Ferry boat dock in Hyannis, where we boarded the ferry in dense fog, and were conveyed to the White Elephant on Nantucket.

The next day we scattered to various parts of the Island in small groups or pairs. Some took bicycles to the beach, others played tennis all day. Orson White flew in by private plane, the fog having finally lifted. In the evening we reconvened for a wild party in Bill McCarty's harbor-facing living room and then divided into two groups to go to downtown restaurants. Sunday noon we enjoyed a fine clambake in the sun and rode back to Hyannis in absolutely ideal weather.

At the twentieth we seemed most preoccupied with teenage children, at the twenty-fifth with aging parents. At this one we had a particularly good time getting reacquainted and studying each other's evolving medical careers. Many commented how each reunion becomes more important than the last. Clearly, we are all looking forward to 1983.

Robert Funkhouser



1953

Our twenty-fifth was surely a memorable and glorious reunion. On June 1, we established a precedent by having an entire session of the Scientific Symposium devoted to papers by members of the Class of '53. The audience was treated to enlightening and stimulating reports by Jim Adelstein, Zanvil Cohn, George Eisenman, Neal Nathanson, and Dom Purpura. That evening we had a delightful dinner at the Harvard Faculty Club in Cambridge, at which we were joined by the Alumni Council, with Dean Tosteson and his wife as our guests.

On June 2, after an excellent Alumni Day program, moderated by Dan Federman, and including provocative presentations by Don Louria, Don Medearis, and Charles Lewis, we went to the Cape for a marvelous weekend at the Chatham Bars Inn. Tennis, beach-walking, driving on 6A, antique browsing, cocktails, dining, and dancing provided splendid backgrounds to the real business of the occasion, which was talking to one another.

We left with the feeling that our appetites had been whetted for our next reunion. See you all in 1983.

Gilbert Levinson

1958

Reunion activities began on Thursday with Class Day and in the evening an outdoor dinner at the home of Kathy and Angelo Erakalis in Belmont, attended by seventy-one classmates and their spouses. The fine weather and excellent Greek cuisine provided an opportunity to see old friends and review the intervening years. Most of us look older, seem more mellow, but continue to live active and accomplished lives. A number of classmates stayed for Alumni Day on Friday and then returned home. Many parents found the activities of their high school and college age children more compelling than a trip to Martha's Vineyard.

Those members of the class who could go, left for the Harborside Inn in Edgartown on Friday afternoon to spend the weekend, or in some cases, just a day on the Vineyard. Like the fifteenth reunion, this was a fine opportunity to relax, talk, and participate in outdoor sports. Everyone enjoyed the leisurely exchange of the past and the present.

We all appreciated the efforts of Cecil Coggins and Peter Schur, our editors, who wrote the updated redbook, and also compiled the anonymous class questionnaire that reflected secret opinions and statistics. While seventy-two responses to the questionnaire cannot be considered representative of the class as a whole, the results provided interesting personal insights that were a



lively topic of discussion during the weekend. Our apologies go to some of the dentists in the class who were not included in the reunion mailings. This was an oversight by the alumni office, which was not picked up by the committee. We were glad that some of you were able to come in spite of this error. After a successful reunion, we look forward to seeing more of the class return for the twenty-fifth in 1983.

Jeannette H. Corwin

1963

On Thursday we arrived at seven o'clock at Dom's. The Davises were there to greet us: Faith having shoveled in from Buffalo and Pepper seeking the

salt air. We were happy to be joined by Bob Alexander, who now is president of a microscopic instrument company in Boston. The long distance award was shared by the Buccinos from Florida and the Turkingtons from Wisconsin.

Friday morning was spent under the tent on the Quadrangle. In the afternoon we drove to the Chatham Bars Inn for two days of eating and drinking and golfing and tennis. On Saturday evening we joined the classes of 1938 and 1953 in dancing up a storm. We appeared to have less wind than those twenty-five years our senior, but were nonetheless pleased to find that we could move about still. The evening lasted until 3:30 a.m. for the Baileys, the O'Connors and the Riordans. John and Kathy incidentally now reside in Brookline and he is thinking of changing his name to O'Cohen.





Our mean weight appears to have remained constant: donors include Coran, Howard, Halpin and G. Moore. Hair has migrated from the scalp to the chin on Sampson and Goldin. Our outlook on life is no longer what we will be but what we are.

Applications are being accepted for membership on the reunion committee for 1983.

Richard Monson

1968

A total of thirty-nine graduates, twenty-five spouses, and twenty-five offspring participated in our tenth reunion activities. A substantial "west of Springfield" delegation included Carve Rutherford from Seattle; Wayne Gradman, budding Beverly Hills surgeon; Lois Dow from Memphis; and Bobby Harley from Boulder. The Florida contingent (Linton Herbert and George Ellsworth) arrived via sailboat. A wine and cheese party at our home in Chestnut Hill provided an opportunity to begin our conversational "catch-up." After the formal events on Friday we gathered for a festive dinner in the heart of the "new" old Boston at the Seaside Restaurant in the Quincy Market. Bob Marshall organized a superb dinner culminating in giant slices of cheesecake! Saturday was family day, with baseball, frisbee, and playground games. A marvelous clam-bake including lobster was dampened only slightly by the rain. Jan Breslow coordinated Saturday, with admirable success.

In reflection, there appears to be a remarkable degree of professional and personal satisfaction. Many of us have finally settled down and established roots. For a class that was in rebellion, we're content and perhaps more conservative than expected. All of those attending are looking forward to additional changes in the next ten years.

Stephanie H. Pincus

1973

Thirty classmates plus spouses and assorted children gathered at the Culver's house for our fifth year reunion. Light showers and an overcast sky threatened the proceedings in the early afternoon, but the hearty camper spirit made up for the slight deficiencies in weather.

Much of the early afternoon was spent catching up on people's whereabouts and occupations while sipping on beer and wine. Seventeen future HMSers (virtually all under age five) sustained a background of busy activity. Dan and Barbara Kopans had arranged a delightful cookout that was enjoyed by all later in the day.

Spenser Lewis and his fiancée won the "longest distance traveled" award, wending their way from Mississippi where both are involved in primary care. However, John and Bianca Beary from Baltimore, Mark and Gail Kelley from Philadelphia and Gary and

Catherine Carpenter from West Point, New York were all in the running. Jim Doroshow had a double reunion, coming from Bethesda to join his fiancée, Robin Winkler, at the party.

A special category award, "the most-twins-in-one-family-present-at-the-reunion" was won by Sarah Hocker Cheeseman, who will be leaving MGH for UMass Medical School this July. Ellen and Elizabeth Cheeseman played the part of the twins.

Everyone expressed relief at having finished or nearly finished training and looks forward to the next five years. Hopefully, an even larger crowd can join us at the tenth.

George L. Tully

Class Day 1978



The singers: (l to r) William Kupsky, Roberta Isberg, Pixie Williams (hidden), Walter Weiss, James Wallis, Katherine Murray, John Douglas, Susan Okie and Christopher French, led by Martha Radford.

It was the first of June; the weather was as brilliant and warm as the thoughts and feelings expressed from the podium. Fifty-four women and 111 men were to receive the title of physician, and fifteen hundred of their friends and relatives had come to share the occasion with them. The graduates were welcomed to Class Day by Dr. Robert H. Ebert, their dean during their first three years here; and by Dr. Daniel Federman, who as the new dean for students and alumni/ae will keep alive their ties to HMS in the years to come. Parting words of advice and well-wishing were spoken by Dean Daniel Tosteson and Paul Goldhaber, D.D.S., Dean of the School of Dental Medicine.

The day was not only a festive celebration and a solemn dedication to the future, but also a forum for consideration of vital social issues. Rita Charon, Ward Casscells and Roberta Isberg of the graduating class and guest speaker Robert Coles all explored the stresses that the medical profession can put on personal ideals and integrity. Bradley

Phillips spoke of the often unrecognized role of the dentist, and David Muñoz of the need for greater attention to the elderly. Arnold Turner gave his perspective on the continuing inequity of access to health care for minorities and the poor. Speaking on behalf of the entire class, Mariette Murphy urged that HMS continue its leadership in educating minority physicians, and retain the Admissions Committee's minorities subcommittee as a means to that goal. A final issue was raised that was not on the program: a group of neighborhood residents drew attention to their concerns about pollution from the still-disputed MATEP power plant with a highly visible display of black balloons.

The morning's events included at least three Class Day "firsts": an original ballad performed by its guitar-strumming medical student composer (Matthew Movsesian); a choral offering combining spirituals, madrigals and barbershop quartet harmony; and a Chinese buffet luncheon.

To the future

Dr. Federman welcomed the new graduates.

It is a bittersweet privilege for me to have a chance to welcome you to these Class Day exercises. As one who was not here during most of your four years, I had the least connection with your class in the past, but as the dean for alumni I hope to have one of the richest connections with you in the future. You have enriched the School, right up to yesterday, when the first *Aesculapiads* in seven years were delivered. That achievement is thanks to one of your class, Donna Felsenstein.

I have wondered what our links ought to be in the future. I think there are three ways that as graduates you can continue to play a big role. First, you are going to practice medicine at a time when it is going to change extremely fast. As those still interested in training physicians, we will be anxious to hear from you with advice and suggestions about how we can do it better. Second, the time is coming when health policy will dominate the concerns of academic medicine as well as practice. We know you are going to be central figures, the School hopes to play its role, and we perhaps will be able to collaborate. Finally, now that you are alumni and alumnae, we are going to seek your help in attracting and evaluating good students to follow you here.

For those of you who already feel a love for Harvard Medical School, I need not say any more. For those who do not, I just hope that some of the frustrations and disappointments, which inevitably go with a learning experience, fade and your love for the School grows in time.

Let me welcome you as physicians and dentists entering a calling. In the next part of your lives you will not come first. Your patients and a commitment to excellence, which we hope you have learned here, will have priority. It is a fabulous life and all of those on the faculty whom you leave behind will always be grateful that you chose to embark on it from Harvard.



From the Class of '78 . . . The strength of the graduates' ties to HMS was manifest in the warmth and gratitude with which members of the class presented gifts to several faculty and staff on behalf of the entire class:

A "person who has just returned to Harvard after several years' absence" — someone who "really cares about students" — was, of course, Dean for Students and Alumnae Daniel Federman. Damian Augustyn presented him with a handsome attaché case.

Honored for being "more than just faculty" were neurobiology professors Edwin Furshpan and David Potter. Class Day Representative Steven Tames read the plaques inscribed in appreciation for their "extraordinary commitments in time and effort in helping our class survive and overcome the trials of a new curriculum, over and above your everyday strong interest in the teaching of medical students."

(continued on p. 42)

Awards & prizes

Paula L. Bockenstedt was the recipient of the Henry Asbury Christian Award for notable scholarship in studies or research — as well as the M.D. degree *cum laude* in a special field — for her thesis, "The Role of Prostaglandin Synthetase in Thrombin Induced Platelet Aggregation."

Andrew J. Doorey won the Rose Seegal Prize for the best paper on the relation of the medical profession to the community, for his paper, "The Surgical Work Day in the British Isles: Some Observations from a Small Sample, Studied in Depth."

Roger A. Freedman was awarded the James Tolbert Shipley Prize for research, the results of which have been published or accepted for publication, for his paper, "Calcium Translocation by Golgi and Lateral-Basal Membrane Vesicles from Rat Intestine: Decrease in Vitamin D Deficient Rats," (Proceedings of the National Academy of Sciences 74:3612-3616, 1977). Dr. Freedman also received the M.D. degree *magna cum laude* in a special field, for his thesis, "Calcium Uptake by Rat Intestinal Membrane Vesicles: Effects of Vitamin D Depletion and Repletion with 1,25-Dihydroxyvitamin D₃."

Matthew A. Movsesian was the winner of the Harold Lampert Biomedical Research Prize for the best paper reporting original research in the biomedical sciences, for his thesis, "Evidence for the Genetic Basis of Neutrophil Actin Dysfunction;" he was also awarded the M.D. degree *magna cum laude* in a special field for this research.

Thomas A. Mustoe received the Soma Weiss Award for the best paper presented at the thirty-eighth Undergraduate Assembly — as well as the M.D. degree *cum laude* in a special field — for his paper, "A Genetic Map of Reovirus."

Daniel K. Podolsky was the winner of the Leon Resnick Memorial Prize for excellence and accomplishment in re-



After the ceremonies: associate dean for student affairs Alvin F. Poussaint and Professor Robert Coles chat with a fellow faculty member, while (below) David Muñoz '78, one of the morning's speakers, engages former dean Robert H. Ebert in conversation.



... to its friends. Susan Okie summoned a surprised June McFee to the platform to receive a gift of opera records in thanks for "her reassuring presence and constant advocacy" as financial aid officer. "She made our class her own special concern."

Tom Wright, "resident grandfather, sage, friend and master of quick wit" of Vanderbilt Hall, was given an original print by the Class of '78. Vilma Ruddock summed up her classmates' appreciation for his "generosity and understanding when we needed it most." (Mr. Wright is also HMS's resident map-maker; an example of his fanciful cartography can be found on p. 59.)

"We looked for a halo, but couldn't find one in time," said Joe Brewster. Instead, he gave Registrar Noreen Koller a silver pin and the heartfelt thanks of the class.

Dr. Alvin F. Poussaint, attending his last Class Day as associate dean for student affairs, was honored for his decade of "staunch student advocacy . . . and his efforts in the recruitment, admission and retention of minority students." During his tenure, minority enrollment at HMS rose from five black students to the present 115 students from a variety of minority groups. Walter Williams presented Dr. Poussaint with a compact edition of the Oxford English Dictionary.

A moment of silent remembrance was observed for two deceased members of the class, Serena Henneman and Louis Scalza. Dr. Scalza had completed all requirements for his M.D. degree, which has been awarded to his family.

search — and also the M.D. degree *magna cum laude* in a special field — for his thesis, "Glycoprotein Biosynthesis in Malignancy: Studies on Cancer-Associated Galactosyltransferase Isoenzyme and Cancer-Associated Galactosyltransferase Acceptor."

Robert J. Waldinger received the Richard C. Cabot Prize for the best paper on medical education or medical history, for his paper, "Sleep of Reason: John P. Gray and the Challenge of Moral Insanity."

Judith N. Wasserheit was awarded the Louise B. Carr Prize for excellence in contributing to the betterment of medical school life.

Along with Drs. Freedman, Movsesian and Podolsky, one more member of the class received his degree *magna cum laude* in a special field:

Carmen A. Puliafito, for his thesis, "Successful Therapy of Experimental Herpes Simplex Keratitis with 5-Ido-5'-Amino-2',5'-Dideoxyuridine (AIU)."

Eight graduates, in addition to Drs. Bockenstedt and Mustoe, were awarded the M.D. degree *cum laude* in a special field:

Richard I. Blum, for his thesis, "Propranolol, Beta-Adrenergic Blockade, and the Limitation of Myocardial Infarct Size;"

Henry Brem, for his thesis, "Control of Neovascularization;"

William H. Frist, for his thesis, "Effect of Hypoxia on Myocardial Relaxation in Isometric Cat Papillary Muscle;"

William Komaiko, for his thesis, "A Mitogen from Primary Bovine Chondrocytes;"

Patricia E. Meadow, for her thesis, "Hemolytic Anemia in *Aotus Trivirgatus* and an Associated Neuropathologic Finding;"

Craig R. Rudlin, for his thesis, "A Photographic Atlas of Neuroanatomy for Medical Students;"

Alan L. Silverberg, for his thesis, "Mecillinam: A Novel Penicillin Antibiotic;" and

Julian Solway, for his thesis, "A Monkey Model for Investigation of the Glycosylated Minor Components of Hemoglobin."

Valediction

by Daniel C. Tosteson



"The unique transaction
between physician and patient"

I congratulate you on this day of joy and celebration, of accomplishment and fulfillment. I lack the words to tell you how privileged I feel to be here with you. The beauty, candor, eloquence, the wisdom of the student speeches are a statement of hope for the future of the world. Listening to them filled me with the same sense of awe and respect that I felt earlier this year when I attended the Undergraduate Assembly and heard of some of your scientific work. I cannot let this moment go by without adding a word or two of personal thanks to some members of the School who have contributed much to your activities. You have already rewarded and acknowledged them in ways that far exceed what my words can do. I want to say personally to Al Poussaint how much I appreciate what has been done for the new administration in this past year, not to mention his extremely exemplary accomplishments during the past decade as associate dean for student affairs. I also want to add my word of personal thanks to Noreen Koller, who, as was well put, has been the students' friend through generations of Harvard graduates.

This is a time of goodbye, an ending in a sense, but also a time of beginning, a dispersion as far as where you will be and what you will be doing. I was particularly delighted to learn that you are anxious to remain in contact with our dean for students and alumni/ae, Dr. Federman. I hope that you will not only be watching, but participating. I believe strongly that the Harvard Medical



Led by Dean Tosteson, the graduates dedicated themselves to the medical profession by reciting the Declaration of Geneva.

School is an extended community, not confined to those of us who are fortunate enough to be able to serve here in Boston. It is a time of dispersion intellectually, too. You will be doing the vast variety and diversity of things that persons called physicians do; you will be making use of specialized bodies of knowledge to deal with particular aspects of medicine. You will be in a sense living expressions of Aristotle's aphorism that medicine begins in philosophy and philosophy ends in medicine. But you will also retain an essential unity as physicians. That unity, which has been touched on by several of the speakers, owes to the unique character of each transaction between a physician or dentist and his or her patient — something never reproduced goes on.

It is that special quality of medicine to work at the interface between learned knowledge and individual unique history that gives us our unity. I have acquired some sense of this unity from many sources, one of the most important being a friend whom I met when I was a medical student. He was a poet and a physician, a man called William Carlos Williams. I knew him personally hardly at all, but I consider him a friend because I became so familiar with his writing. I met him once, when he came to read some poetry in Cambridge; I invited him to come over to the Medical School but he said no, that wouldn't be proper, I'm not enough of an academician in medicine. I will share with you two of his statements in his autobiog-

raphy about being a physician and a poet, because I think they capture so well this unity of all physicians. He says:

It's the humdrum, day-in, day-out, everyday work that is the real satisfaction of the practice of medicine; the million and a half patients a man has seen on his daily visits over a forty-year period of weekdays and Sundays that make up his life. I have never had a money practice; it would have been impossible for me. But the actual calling on people, at all times and under all conditions, the coming to grips with the intimate conditions of their lives, when they were being born, when they were dying, watching them die, watching them get well when they were ill, has always absorbed me.

I lost myself in the very properties of their minds: for the moment at least I actually became them, whoever they should be, so that when I detached myself from them at the end of a half-hour of intense concentration over some illness which was affecting them, it was as though I were reawakening from a sleep. For the moment I myself did not exist, nothing of myself affected me. As a consequence I came back to myself, as from any other sleep, rested.

William Carlos Williams saw the transaction between physician and patient as best captured in the idea of a poem.

The physician, listening from day to day, catches a hint of it in his preoccupation. By listening to the minutest variations of the speech we begin to detect that today, as always, the essence is also to be found, hidden under the verbiage, seeking to be realized.

But one of the characteristics of this rare presence is that it is jealous of exposure and that it is shy and revengeful. It is not a name that is bandied about in the market place, no more than it is something that can be captured and exploited by the academy. Its face is a particular face, it is likely to appear under the most unlikely disguises. You cannot recognize it from past appearances — in fact it is always a new face. It knows all that we are in the habit of describing. It will not use the same appearance for any new materialization. And it is our very life. It is we ourselves, at our rarest moments, but inarticulate for the most part except when in the poem one man, every five or six hundred years, escapes to formulate a few gifted sentences.

The poem springs from the half-spoken words of such patients as the physician sees from day to day. He observes it in the peculiar, actual conformations in which its life is hid. Humbly he presents himself before it and by long practice he strives as best he can to interpret the manner of its speech. In that the secret lies. This, in the end, comes perhaps to be the occupation of the physician after a lifetime of careful listening.

*In its rush to be scientific,
medicine has lost sight
of its true character*

Medicine and the humanities

by Robert Coles

In previous centuries the humanities were concerned with grammar and rhetoric, with the classics, with moral and philosophical inquiry through the essay, casual or systematic, or through the writer's imagination: the novel, the short story, the drama. Such "polite learning," as the humanities were once described, all too readily became connected to notions of class, privilege, social position. In *Jude the Obscure*, Thomas Hardy dared broach such matters with a late nineteenth century Victorian audience. His central character, a sensitive, intelligent, idealistic member of the working class, watches all too closely the privileged students of a university community thinly disguised, but apparent to everyone, as an Oxford, a Cambridge. The earnest affection for the humanities felt by the relatively uneducated artisan is made to contrast with the smug self-importance, the arid pietism, the callous arrogance of a community of much-honored scholars — whom Hardy knew to be as vulnerable to meanness of spirit and even, ironically, downright prejudicial ignorance as any other group of successful mortals. Of course, Matthew Arnold had already stirred things up among nineteenth century England's custodians of high culture with a sweeping insistence that the literary sensibility, the informed intelligence of novelists, poets, critics, be brought to bear on vexing contemporary issues — rather than be held in all too lofty and disdainful reserve as the property of a self-selected few.

Yet those writers were not everywhere heeded; nor were Dickens and George Eliot in England, Balzac and Zola in France — proponents of a vigorous examination, through the novel, of the nineteenth century's social problems. In our time the kind of social and psychological analysis Matthew Arnold urged upon his Oxford colleagues (to their considerable protest), the kind done so literately and circumspectly during the 1840s in America by Alexis de Tocqueville, has become the property of the social sciences. As for the natural sciences, they have become an adversary culture, of sorts, to the humanities — a characterization C.P. Snow chose for dramatic emphasis, but not without appropriate recourse to the way many of us tend to think: the hard facts, as against the mushy, anecdotal, impressionistic forays of "art." As for the sociologists and psychologists, no one is going to find most of them anywhere but in the camp of explicit, insistent "science" — arguably, as in the expression "more Catholic than the Pope," making up for any still pressing element of professional uncertainty or confusion with nervous avowals of faith.

Of course C.P. Snow knew how sad and wrong-headed the split between the "two cultures" has ended up being for all of us. There is no inherent conflict between a chemist or physicist at work in a laboratory, and a novelist busy constructing a plot and a number of characters. A biologist may go full speed ahead, developing ideas and doing experiments without in any way



"The knowledge one gets in medical school is worth little if not part of a morally sensitive and reflecting tradition."

casting doubt upon the worth of an artist, a sculptor, or a scholar anxious to figure out poetic imagery or the nature of the connections that bind a particular "school" of painters. The issue is not the antagonisms generated by different intellectual initiatives; the issue is, at heart, religious and philosophical — the ideological uses to which various disciplines have been put. In the nineteenth century, as science was growing in leaps and bounds, the German philosopher Hegel decided to become a "scientific" philosopher; he would banish mystery, ambiguity and uncertainty, replacing them with the precise formulations that men who worked in laboratories felt able to offer. The Danish theologian (and wonderfully astute psychologist) Søren Kierkegaard read Hegel's treatises carefully, appreciated their unquestionable ambitiousness, acknowledged that they explained virtually everything (how history itself had worked, was working, would until the end of time work) except for one small matter: what it means to be a particular human being, living in the world, and aware of oneself, one's situation, one's unavoidable future — death.

It is possible, the cranky hunchback from Copenhagen was insisting, to know an enormous amount, to do research and more research, and yet miss the essential point of things. One need not, for example, in any way take issue with the honorable efforts of behavioral psychologists to connect human actions to the conditioned responses of rats, who have learned to negotiate their way through various mazes. But when one hears those same "hard" social scientists referring to our "superstitious" anthropomorphic tendencies — the inclination some of us have to attribute human attributes to the natural world — one is tempted to remind these colleagues of an inclination of their own, perhaps best described as ratomorphic: a tendency to attribute without necessary qualification to one kind of life on this planet — mankind — the qualities of the rat.

We all have our reflexes, but it is men and women who use language, know what their fate is, struggle with the pleasures and disappointments of awareness. One says that not in self-congratulation, but in order to point out

one of the hazards of a kind of quantitative or experimental work: an overall context is lost sight of; a rather obvious qualitative distinction is too strenuously minimized. My own field, psychiatry, has had its problems in that regard. I draw from a distinguished psychoanalyst, Leslie Farber: "For while the creatures described [in psychiatry] may bear some resemblance to animals, or to steam engines or robots or electronic brains, they do not sound like people. They are in fact constructs of theory, more humanoid than human; and whether they are based on the libido theory or on one of the new interpersonal theories of relationship, it is just those qualities most distinctively human which seem to have been omitted. It is a matter of some irony, if one turns from psychology to one of Dostoevsky's novels, to find that no matter how wretched, how puerile, or how dilapidated his characters may be, they all possess more humanity than the ideal man who lives on the pages of psychiatry."¹

Does medicine have all that much to learn from such a way of looking at people — the psychological reductionism, so banal and pompous, Dr. Farber is at such pains to deplore, because he knows how influential it has been in this century? More broadly, has medicine become involved in the cultural crisis C.P. Snow referred to a while back — yet another ally of "science" in the increasingly explicit contest for mastery of a century's mind? One historian of medicine, Stanley Reiser, who teaches at this medical school, has recently sounded an important warning:² all too many of us physicians have confused science with technology, and so doing, have indeed become caught up in a polemical, and at times farcical position. We shower our patients with tests, run them through a gauntlet of machines, talk to them less and less, ask them fewer and fewer questions about how they as individual men, women, and children are getting on with their lives. We are "scientists," so it is insistently said, and our aim is to go

after patients with instruments, gadgets, procedures in pursuit of "findings," the more the better.

Who in his right mind would want to ridicule those modern modes of medical inquiry in and of themselves? As one who lived and worked in the South for years, I know the risks of nostalgia — the foolishness, the outright mischief it can come to. The agrarian tradition, in the hands of many, became a clever apologia for the good old days of segregation, extreme poverty, and rampant, murderous racism. On the other hand writers such as Robert Penn Warren and Ralph Ellison have known that both black and white people lost a lot when they came North, exchanged one flawed way of life with another in its own ways seriously deficient. Similarly, the point is not that medical technology is, in itself, anything but valuable. Rather, one wonders, as Dr. Reiser does in his book, whether today's doctors haven't been first captivated, then captured by that technology; it becomes *the answer*, a central, controlling preoccupation. Meanwhile, we rely less and less on our eyes, our ears, our ability to have a reasonable and revealing conversation with our patients — one in which they tell us about their complaints, the story of their aches and pains, and thereby, let us know a good deal about themselves: human beings who have come seeking help from doctors, who are presumably fellow human beings, rather than conduits for laboratory centrifuges, x-ray machines, computers, and yes, the overwrought theoretical classifications of psychopathology.

In 1964, while working in the Mississippi Project, an effort of American youth, black and white, to challenge once and for all the heartland of segregationist power, I came across an extraordinary black young man who had just finished the eleventh grade at a consolidated high school that served his community of Midnight, Mississippi, a sleepy Delta hamlet that for generations had been part of the South's sharecropper-based cotton economy, and recently has been suffering the pain generated by a rapidly collapsing rural life. Machines have replaced people, who have the alternative of staying put and living a wretched life of extreme poverty, or trekking North to

1. Leslie Farber, "Martin Buber and Psychiatry," *Psychiatry*, vol. 19, 1957, p. 110.

2. Stanley Reiser, *Medicine and the Reign of Technology*, Cambridge, 1978.



increasingly inhospitable and dreary ghettos. This black youth had caught the attention of several black teachers in the all-black school he attended, and after a talk with him I could easily see why. He was a wonderfully thoughtful person, open to speculation, honest as could be, deeply religious but with no accompanying, cloying sentimentality. He hadn't received the best education, of course, but he also hadn't learned to be glib, jaded, all too sure of himself — or conventional in his way of responding to the world. He had none of the liberal agnosticism so many of us wear proudly, if discreetly, on our sleeves. He was a hard-praying Baptist, yet he could read J.D. Salinger's *Catcher in*

the Rye with exquisite respect and comprehension; and even if he misspelled a lot of words in his themes, they were full of what Tolstoy or Dostoevsky, without the least condescension, knew to appreciate as "uncorrupted peasant wisdom," the latter's polemical phrase meant to be a slap at the arrogance of Russia's nineteenth century intelligentsia, and maybe, at all of us who become overly impressed with ourselves as intellectuals.

A number of teachers knew that the black youth deserved better, in the way of higher education, than he would get at the time in his home state, and no doubt in the entire South. They wanted

him North, in a "good school." He wanted to be a physician, they kept telling me, and after a number of weeks their student confirmed that impression of theirs: "I've wanted to be a doctor for a long time, but I fear to mention it. Christ healed the sick; he worried about 'the lame, the halt, the blind,' and he tried to do something good for them. He worried about the poor. He worried about the 'rebuked and the scorned' — the folks all the uppity ones looked down on. You mustn't *decide* to be a doctor. It's a *calling*, our minister says. If you're hoping to walk down Christ's path, and be a healer to your neighbors, then you've got to have His blessings. So, no sir, I can't say I *want* to be a doctor, or I'm *going* to be a doctor; I can only say that in my prayers to God Almighty I tell Him that I'd like His blessings, and then I might try to be one."

At the same time this humble person could be assertively knowing; he thought that "the trouble with Holden Caulfield is this: he has everything but he doesn't know what the purpose of his life is, so he doesn't have everything, after all." As for Walker Percy's *The Moviegoer*, which I had strongly recommended, the young reader was not in the least daunted by the barriers of class and race that separated him from the novel's main character, Binx Bolling: "That guy in the story is trying to find out how you should live your life — how *he* should live *his* life. He knows a lot. He's figured out that you can be real smart, but that's just the beginning. He's figured out that you can be on top, but feel real low, because you're looking around, and you're seeing how bad things are, instead of fooling yourself by painting a pretty picture of the world. A lot of people, they spend half their lives trying to kid themselves, and the other half they're sick, because they're in pain, their soul is, and they don't know how to cure themselves of the trouble. They've gotten themselves an illness, but they don't know it, and they don't know who to go see — for a diagnosis and some treatment."

Not a bad analysis of a notable American existentialist novel. In the youth's senior year we all set to work on our errand, liberating from the Delta a bright and studious black person, the son of grievously poor tenant farmers who had



precious little schooling to their name (we had not yet, in the middle 1960s come upon all those fancy, self-important phrases, “culturally deprived,” “culturally disadvantaged”). For my part, I wrote to the then president of Amherst, a physician who had taught me medicine, and he was anxious to help. Eventually this young, black Southerner came north to Cambridge, Massachusetts, where he tried hard for four years to learn — to find a direction for his life. He told his freshman adviser of his *hope*, medicine — not his “goal,” and not his “plans” for his “future career.” The adviser wasn’t quite able to comprehend the young man’s tentativeness; one either wants to be a doctor, or one has doubts, or one doesn’t have in mind medicine as an occupation. As for the “waiting” the student mentioned, the “waiting for God’s judgment” on the matter — it has for a long time been the function of universities such as Harvard to replace naïveté and superstition with “enlightenment.” Time, and four courses a semester, would work miracles (of a decidedly unreligious kind) on the student’s way of thinking about himself and his possibilities — or so it was thought.

And so it seemed to happen. In his sophomore year the student, as a matter of course, and with no mental scrupulosity or religious anguish, became a “premed.” He took biology and inorganic chemistry. He was, though, still a reader of novels, short stories and poems; so he chose to become an English major, and as such did not forget to heed Ralph Ellison’s advice (and warning) that blacks ought hold on, for dear life, to their regional roots. He studied Flannery O’Connor’s short stories, Faulkner’s novels, Eudora Welty’s tales, Walker Percy’s fictional exercises in soul-searching, and Reynolds Price’s efforts to harness the genre of family romance to the requirements of plot and character portrayal. By the time junior year came around, the student was heavily involved in organic chemistry and physics, while at the same time taking English and history courses.

He seemed on top of everything, an example of a broadly educated student on his way, soon enough, to being accepted at a first rate medical school. But something happened in the middle of that fateful year, and I had best let the young man himself do the remembering: “I was doing fine, I guess, until one day in the lab, the organic chem lab, I saw a kid take out something from a bag, and wink to his partner at the next bench; and then seeing me looking at them, they turned their backs on me. Suddenly I woke up from a long sleep. This wasn’t the first time I’d seen kids cheating, but I guess I hadn’t wanted to notice, not *really* notice. Now I remembered other things — slips of paper I saw kids sneak in and use on the tests, and the yields made bigger with sugar or salt, or other stuff. I used to think the things I heard were funny; I used to think that no one *really* cheated on those tests or in the lab. But I had conned myself and I know the reason now; I didn’t know what to think, what to do. Once I saw some bad cheating on a chem hour exam, and I was going to report the kid, but I couldn’t bring myself to do it.

“After I saw the lab cheating, I went to see the minister in the church I attended, and talked to him. He said you can’t always be your brother’s keeper; you have to try to be good yourself, and leave the rest up to God. I told him it

was fine to say that, but what if a lot of cheaters became doctors later on? He said that maybe I was exaggerating what was happening in school. I said that, to tell the truth, I was doing just the opposite. And besides, there were plenty of kids who were killing each other for grades. You can’t get them to tell you anything, to share anything, to help you in lab. All they say is that it’s dog eat dog, and we’re all enemies, fighting for our place on the curve. Then you go back to the Houses, and you hear these people planning, all day long they’re planning: what to do for ‘activities,’ and what kind of voluntary work to sign up for, so it’ll look good on their records. It’s ‘murder,’ that’s what they all say, and that’s what I began to realize — that I was becoming a lousy, mean, selfish ‘murderer,’ like the rest of them. And I didn’t want that to happen.”

In his senior year this young man was in anguish. He had obtained good marks in all subjects, including the sciences, mostly B’s and some A’s. Yet, he did not like the premed students he had spent so much time with, and he began to have second thoughts about a career in medicine. He told his adviser of his misgivings, and was encouraged to think of other occupational choices. Still unsettled and increasingly apprehensive in the late autumn of that year, and now a member of this century’s American intelligentsia, he sought psychiatric “help.” After three “sessions” he had even more to worry over: “The doctor said I am afraid of competition. He said I’m letting other people — what they do, and how they act — determine my behavior. He kept on asking me how I get along with my brothers and my sisters. I told him fine, but I don’t think he believed me. The more I told him about the premed people, the more he told me the ‘problem’ was mine. Then I got angry and asked him what he thought of people who bragged about cutting each other’s throats. He said that was *their* problem,’ and we should look at *my* problem.’ He’s just like the minister up here.

“No minister back home would talk like that. No one in my family would, either. Up here, the ministers (a lot of them) don’t really believe in God, not like they do where I grew up. Up here the ministers try to talk like psychiatrists, and the psychiatrists talk to you like some of the



"We rely less and less on our eyes, our ears, our ability to have a reasonable and revealing conversation with our patients."

ministers do back home — as if they have a direct line to Heaven! I guess I'll do without any of their 'help.' I guess I'll try to get a job teaching. I may go to the graduate school of education. I'd like to be able to go back to Mississippi, and get a job in a school, somewhere near home, helping people — introduce good books to kids, and get their minds going. The only thing that bothers me is this: some of the kids will end up in my boots — up here, wondering what's right to do, and what's wrong, and being told they're 'depressed' because they shouldn't wonder, shouldn't ask questions; they should just go ahead and get ahead, and if people get pushed to the left and to the right or in back, then that's *their* problem!"

He graduated *magna cum laude* in English, went on to get a master's degree in education, did indeed go back to Mississippi, to a job as a high school teacher in the town of Greenville. He still wonders whether he made a mistake, whether he ought to have gone to medical school. Sometimes, with undue bitterness perhaps, he turns on those of his classmates who did pursue his original dream, and are now young physicians. At other times, he is more self-

critical, more resigned, more humble, and I think, more challenging: "I wasn't made to be a doctor. I wasn't determined enough, tough enough. There are so many people who really want to go to medical school. They've dreamed all their lives of going. They'd do anything to go. The medical schools haven't got any time to waste on people like me. I'm too shy; I get absorbed in a novel I'm reading, and it becomes my life for a while. If I can help some of the black kids I teach, through these novels, to think about what life is all about, and what's important, and what's not important, then I'll be glad. Doctors are too busy to worry about life, the way a good novelist does. But I'll never forget *Middlemarch* — the doctor in it, Lydgate. I think of him a lot when I think of my years in college."

A young teacher, highly ethical and reflective, a decent and compassionate man, makes mention of George Eliot's great nineteenth century novel, and in it, the doctor who as a young practitioner wanted to help change a sadly ignorant and corrupt profession. The idealistic doctor who comes to naught, to ruin, is hardly a stranger to literature. F. Scott Fitzgerald in *Tender is the*

Night, has shown a twentieth century audience what George Eliot offered the Victorians — a portrait of hopes and dreams badly undercut by the flaws of character which all too promising individuals manage to conceal from themselves, never mind others. Perhaps the young black man had seen not only his own severe limitations, but a few warts, and more, in those of his classmates who were not afflicted with his fateful inclination toward a loss of nerve. In any event, we need not be haunted only by his example. Lord knows, there are others who stayed the course, who are right in this profession of ours, and who also wonder quite earnestly what is happening to it, given the fierce competition, the sometimes sleazy manipulations that are connected to undergraduate premed life, and later, admissions procedures; given the unqualified emphasis, in some quarters, on grades or scores; given the obsession many of us have for technological procedures, tests, routines; given the continuing coziness, in at least some parts of this country, between physicians and the quite well-to-do, whereas the poor, the socially or economically or culturally marginal, must often make do without us.

I recommend strongly the recent advice of one of this nation's wisest and most literate physicians, Lewis Thomas. In the *New England Journal of Medicine* of May 25, 1978 he strenuously criticizes the premedical curricula, as all too often given sanction by our medical schools. He is not calling, in remediation, for the nervously bloated, pseudo-scientific language one finds in too many psychological, sociological and psychiatric conferences — the blah-blah that is part of the problem, rather than an answer to it. He makes clear that he is calling for a recognition of the importance the humanities have for us — not as pieties to be conveniently summoned, then easily shoved aside, and not as a bit of slick polish, to be worn with self-congratulation, but as a terribly important part of our lives when college students, when medical students, and well beyond, too.

Perhaps the time has come for a careful look at the relationship of the humanities both to undergraduate premedical training, medical school curricula, and our postgraduate education. I remember two of my favorite medical school teachers, Robert F. Loeb and Yale Kneeland, Jr. referring to the novels of Dostoevsky, which they as busy, full fledged professors were reading in a "study group." One day, as a matter of fact, Dr. Loeb reprimanded us for knowing a given patient's lab scores better than the details of her life: "You don't have to be a Dostoevsky, but you ought to read him, because he had an eye and an ear for people, and that's what you'll need as much as knowledge of what the normal values are in the blood tests you're ordering."

No one would fault that great Russian novelist the "eye and ear" mentioned, but he had something else, as did George Eliot, as does an important, contemporary American novelist who also happens to be a physician, Walker Percy: an abiding interest in human complexity, and a determination not to see it "resolved" (that cool, slippery word of our time) by any scheme of classification, by any inventory of traits or symptoms. What these storytellers have wanted to examine is the nature of human *character*, an old fashioned word badly in need of revival — in our national life, and in connection with medical school admissions, medical

school education. Character is not to be confused with "personality" or "mental health," or with an "attitude" or two. Psychiatrists talk a lot about "character disorders," but what do they tell us about character? The young black mentioned earlier would be the last one to push himself upon us with applause, but in fact he did have "character," a good deal of it — maybe too much for his own good, things being as they are.

Character is connected to a philosophical search — a person's struggle to understand what is right, what matters, what in eternity's scheme of things is worth pursuing in the second or two, relatively speaking, we have on this earth. We each engage in that pursuit in our own way. If there is one central conviction of the humanities, it is that of human variousness, individuality. As physicians we also know, or ought to know, that each person is different, each patient reacts in his or her special way to any illness, indeed to life itself. A sense of the complexity of human affairs, a respect for human particularity, an interest in the ethical, the just and unjust sides of the social order, an awareness of life's unremitting contingencies, an awe of the mystery that clings to us "world without end" — these are the stuff of the humanities at their best, and ought to be, too, of the doctor's education, the doctor's everyday, practicing life. The knowledge that one gets in college, in medical school, may no doubt have its uses — but it is, finally, worth little, if not part of a morally sensitive and reflecting tradition, one to which each generation of physicians has to add its particular contribution.

It was precisely because his concerns extend far beyond any narrow definition of medicine that Robert Coles, M.D. was chosen by the Class of 1978 as their guest speaker. Dr. Coles is internationally known for his five-volume work, Children of Crisis, which examines the effects of social change in the US, particularly on the lives of the poor and oppressed. His research method — not a traditionally "scientific" one — is to live with and talk with the people he writes about. Dr. Coles is professor of psychiatry and medical humanities at HMS.

Reclaiming our lives

by Rita A. M. Charon

Becoming a doctor or a dentist is a bizarre process, and I would like to sort out some of the less obvious outcomes of these four years.

Our lives here have been brutal, which is not to say that they haven't been quickening, tender, full. We have lived through profound events with patients: we learned their pain, their nobility, their dread. We have been forced close to territories which frighten, which threaten, which hurt. We have aged. And we are very proud of ourselves.

We were young at the start. We opened with trust to a battering of our bodies and our feelings. We could not understand what we had chosen. We now know that we chose to enter a private dark space of vulnerability and sadness as well as its lit counterpart of health and strength.

We needed protection from the sadness. We could not think and cry at the same time. Either our superiors had largely forgotten the emotional impact of sickness and death, or they thought it



Dr. Charon: "we suspend many of the normal rules of living"

to our benefit to develop distancing techniques in doing our work. In any case, we were taught how to objectify, how to analyze, how to quantify, how to defuse the confrontation with the taunting reality of illness. We began to be thankful for interesting consults; we became adept at rounding in and rounding out on patients who had demands, questions, fears. It hurt less as time went on.

Other things happened as well. An image from first year anatomy lab comes to mind: two electricians passed by the open door of my dissecting room. They stopped, stared, smelled, asked one to the other, "Are those things real?" I slammed the door quickly to hide what we were doing. I felt we were doing something wrong. I think this feeling persists in clinical work, not because our work is wrong, but because we suspend many of the normal rules of living. We touch the naked bodies of strangers, we ask about intimate details of their lives. We hurt people, and we lie about it. We forget about modesty, privacy, pride. We pretend to know more

than we do. We laugh at jokes that aren't funny.

From the start, we find comfort in being with people like us. We seek safety within the professionally-defined clusters on the wards. We don't have to hide from each other what we do. We learn to depend on that peer group for teaching, for praise, for absolution. We pay our behavioral membership dues.

Slowly, our alliances to our natural groups are replaced by loyalty to our peers. The tension of the relationship between female nurses and female medical students is a telling example: sisterhood is overpowered by the rule of orders. We grow to defend those whom we most resemble. After months of every third night on, we don't resemble people with normal lives. We come to constitute a separate race. We round up in our culture. We replace our windows on the world with mirrors. Medicine, true to form, makes itself indispensable.

The isolation within our ranks works to limit the sense of tragedy and shame. It works in other ways as well: it bolsters our faith in our own work. We need answer only to people who are as invested as we are in the truth of what we do. We cheer as leeches are replaced by steroids. How many naked emperors squeak through?

The effects of belonging to the club need no elaboration. Membership in any elite brings rewards, title, power. This elite is peculiar in that it can afford the ruse of equality. Even we misfits who gain admission are transformed by the process into pure-breds. They know they need to frisk us at the gate.

We wonder how medicine can do the things it does: the Tuskegees, the unwanted sterilizations, the new Harvard hospital whose power plant is a health hazard. We see with horror our egocentricity: the deference, the incomes, the privilege we feel we deserve. We see with horror how our work is used to advance a social policy of control and containment of less privileged majorities.

In understanding these dynamics, we have to look at the economics of our workplace, the hierarchies we head, the elegant nature of a system which transforms self-interest into moral force, the arrogance and the profit of science. I suggest that we have also to remember this training process that prevents us from seeing what other people see, leaving us locked-in, lonely, and bitter at our losses.

I am afraid that most of the process is essential. When I code, the person on the crash cart had better not be crying. But we can uncouple the knowledge from the fear. We can choose to see clearly beyond our interests and our needs. We can become whole again, and can regain our alliances to the rest of the world. Then, yes, we can be proud of what we do.

Minorities and health care

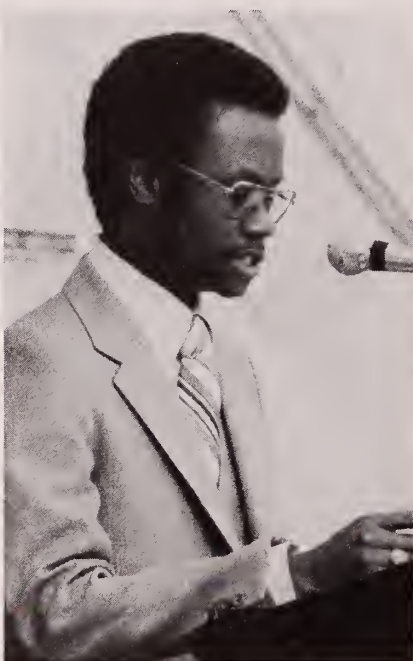
by Arnold F. Turner

The founding fathers of this country envisioned as the purpose of these United States to guarantee men and women certain inalienable rights — life, liberty, and the pursuit of happiness. It is only through medicine and its health care delivery system that individuals may be ensured a quality of life to pursue these rights. If this country were living up to the ideals of its founding fathers, it would be a land of equality, with all of its citizens enjoying a quality of life that allows them to pursue whatever opportunities are afforded to them. Or, if there were a weakness in the system, no particular group of people would be singled out as victims of that fault. Just as this level of equality was the dream of the forefathers of this nation, it is still the dream of its black, Chicano, Puerto Rican and Native American peoples.

The present health care delivery system has participated in creating this inequality of life for minorities. The vital statistics for 1970 revealed a life expectancy at birth of 65.3 years for blacks and 71.7 years for whites — a difference of 6½ years. Therefore, although they pay social security, blacks on the average hardly survive to receive it. Furthermore, assuming that the age specific death rates should ideally be equal for black and whites, Dr. M. Alfred Haynes, associate dean of the Charles R. Drew Postgraduate Medical School, found that up to age seventy-five in the black population there were over 84,000 excess deaths per year — deaths that would not have occurred if the population had been white.

The institutional racism in the health care delivery system is evinced by the difference in the availability of health care to whites and to minorities. In 1970, 58% of blacks and 70% of whites reported seeing a physician during the year. In the years since, this has improved. A 1976 study revealed that 76% of whites and 74% of blacks reported that they had visited a physician, which is undoubtedly the result of the removal of financial barriers to health care through Medicare and Medicaid. But with each gain, there is a retreat. A new malignancy has evolved — the physician who refuses to care for the disadvantaged, not only because of delays in receiving Medicaid payments, but also because the reimbursement is less than what a middle class clientele will pay.

Minorities are underserved because they are underrepresented in all aspects of health care and, therefore, lack the political power and resources to compel health administrators to understand their definition of the problem. As a result, they must accept what is given to them. However, minorities are beginning to gain representation. The assassination of Dr. Martin Luther King in April 1968 spurred medical schools to



Dr. Turner: "with each gain, a retreat"

recruit and admit minority students, and the percentage of minority first year medical students has risen from 2.9% in 1968 to 8.9% in 1976. Now, Allan Bakke and his co-conspirators are threatening to sabotage this triumph, giving minority students the impression that a corollary to the axiom — last hired, first fired — which was applied to their parents and grandparents, is now about to be applied to them.

The inequity is not limited to racial minorities but includes the elderly, the poor, and women. Racial and economic prejudice is a malignancy harbored within the health care delivery system, sequestering its resources and thereby impairing its vital functions. As we become providers of health care, let us not be consumed by the system; rather, let us strive to eradicate this malignancy by bringing a new vitality to medicine to end the disparity in the delivery of health care, so that every man, woman, and child, regardless of his or her ethnicity or economic status, will enjoy the quality of life to pursue the rights of liberty and happiness.

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I didn't even know they had one

by Bradley L. Phillips

"So, are you going to talk about dental caries?" asked a fourth year medical colleague.

"Hah! At least he didn't say cavities," I thought to myself, and then regretted not having asked if he would be talking about hemorrhoids or heartburn.

Cavities, pain, drill and fill . . . after four years is that what it all comes down to?

Two years ago, as I embarked on the Introduction to Clinical Medicine, a similar episode took place. The resident followed me into the examination room



Dr. Phillips: more than "drill and fill"

where the patient sat. He reviewed the history, repeating the same questions I had asked. Fortunately, he received the same answers, too. He nodded tacit approval. He then began going over the physical exam and digressed into a conversation about my plans for the future. Would it be medicine, surgery or perhaps ob/gyn? An inferiority complex swept over me and I hedged, "I don't know."

"Ever do one of these?" he interrupted, donning rubber glove and Lubifax. As his fingers passed out of sight, I gathered some courage and mumbled that I was into the other end of the business. "You know, teeth and gums," I said. Fortunately, his response was not, "How can you put your fingers into someone's mouth." Rather, it was a shocked, "Dentist, eh? What the heck do you need all this for?" There I was again, explaining my reason for being.

At HSDM, we are a bit different. We do not study just teeth; dentistry is a part of the medical field. We study with the medical students for two years, go into the hospitals with them, gain that same basic knowledge — and also get down to the teeth of the matter — dentistry and courses in oral pathology and medicine, research, periodontics, endodontics. All to become part of the team delivering health care and to become, as lofty as the idea sounds, leaders in the field — a cut above the rest.

Yes, there is a Dental School at Harvard — originally proposed as a chair of dentistry to the Harvard Medical School on March 6, 1865 and approved on March 29, 1867 with these words:

Dentistry has become with the past quarter century a most important art, a knowledge of which supposes not only mechanical skill, but a thorough acquaintance with the processes of dentition, physiologically and pathologically considered. Hence arises the necessity for a knowledge of the general principles of anatomy, physiology, surgery, chemistry and materia medica, to which should be added some knowledge of the theory and practice of medicine. A medical school already established is therefore the best place at which these various studies can be attended to. It is all-important that the art should be cultivated by all means in our power. . . .¹



The first faculty consisted of three dental professors and three professors of anatomy/physiology, surgery, and chemistry. This august group included Oliver Wendell Holmes, Henry J. Bigelow, John Bacon, Nathan Cooley Keep, first Dean of the Dental School, and Daniel Harwood, who soon resigned out of fear of becoming too separated from the Medical School.

Fortunately, the essence of Dr. Harwood's sentiments has persisted at the Harvard School of Dental Medicine. We are part of the health care team, not mechanics, not tormentors, not competitors of the physician. The founders of HSDM had great insight into the future when they created the DMD degree, Latin for Doctor of Dental Medicine — *Dentariae Medicinae Doctor* — not "Didn't Make Doctor."

The social and professional attitudes which cast the dentist in a minor role are difficult to overcome — but great strides have been taken towards this goal as more and more dental pro-



Stress, heart disease and medical students

by Ward Casscells

grams become incorporated into hospitals, and national insurance plans begin to include dental care.

A few words on dental caries, the number one disease? It's not too late. Fluoride, have regular checkups, brush and floss every day. Thoughts from a fellow dentist, Sydney Garfield, better express the legacy of the profession:

From the beginning the tooth has been one with man. He evolved with him from the depths of oceans. From waters they crept over the land. Bound to the surface he lifted his head, then rising he spread, and breaking bounds, entered the skies. He's always been one with man — king and peasant alike — through sufferings and pains and agonies and death. And he joined his pleasures and loves, and wars and plagues, and orgies and feasts. And now the tooth enters another realm, to moons and planets and the stars.²

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Psychological stress is known to be important in the development of coronary heart disease, and while as a medical student I know little about heart disease, all medical students know something about stress, firsthand! Since I began to study this subject a number of you have asked, "Do doctors die young of heart disease?" And then, "How young?" I'm told that we are all, inescapably, "Type A" personalities. Yet many have found that, personality and heart disease aside, the stress experienced by doctors is excessive. Several have confided that one way to reduce it is to quit rocking the boat. I would like to respond to this.



Dr. Casscells: "happy warriors"

To be sure, the ambitious, aggressive, hurried "Type A" is at a two- to fivefold greater risk of heart attack. Likewise, despite their longevity, US physicians have nearly twice their share of coronary deaths, even more than lawyers. Medical students are worse off, with higher mortality than matched controls. Are we stressed? Numerous studies find us "overachieving, obsessive-compulsive, masochistic, and universally anxiety-ridden." I suppose that means yes! From thirteen to forty-six per cent of us are said to be hampered by severe neuroses. Our stress is said to derive, not from social relations, patients or family, but from academic competition. We are also said to grow more cynical as we grow more anxious during medical school.

My contention, though, is that we become anxious in part *because* we become cynical, because we see ourselves relinquishing ideals in the face of a system which often does not reward them. We find ourselves competing for positions in a profession with high rates of alcoholism, suicide, drug abuse, and divorce. We seek top academic residencies, often to be followed by academic fellowships, instructorships, assistantships, and still no tenure. But once there, young academics hope they will get some rest. Maybe so. Recently I reported that Harvard graduates in academic life died some six years sooner than those in private practice.

What is to be done? Is meditation the answer? What about a California residency? Or would we become competitive over volleyball? Fundamental behavioral changes don't come easily. But there may be an alternative to just trying to slow down. You see, I have a suspicion that the the real predictive elements among the Type A qualities are not ambition or hard work *per se*, but the less appreciated stipulation that the goals are ill-defined and unlimited in quantity. There is little evidence that hard work itself — or conflict, for that matter — is dangerous.

Ward Casscells is spending a fifth year at HMS, doing research on the autonomic nervous system and the electrical vulnerability of the heart, and on psychological stress and the epidemiology of coronary disease.



Geriatrics, the new frontier

by David R. Muñoz

Many studies have cited feelings of depression, helplessness or giving-up as the main precursors to a heart attack. Clearly no single psychological state characterizes all victims, but my own hypothesis is that it is the joylessness of work and competition that is to be avoided. Among coronary patients you meet so many who seem to have been, even before the attack, angry, driven, and caught. Their aggression is often restrained, or turned inward. Less often do you see heart attacks in people who work hard and enthusiastically, who fight openly for something they believe in. Yet there are such people. George Vaillant calls this quality, "vital affect." I have called such individuals "happy warriors" in honor of Hubert Humphrey and Al Smith. Are they less prone to coronary disease? Several lines of indirect evidence support this: the higher coronary mortality of the retired, of "reluctant" lawyers, of internists, compared to the more enthusiastic, hard charging surgeons, the decline in heart attacks during wartime, and so forth. Almost seventy years ago, Osler observed that physicians he knew who had coronary disease were on "the incessant treadmill of practice and yet if hard work alone was responsible, would there not be a great many more cases. Every one of these men had an added factor — worry."

Of course, coronary fears are not important considerations in guiding our actions. I offer these observations about

one aspect of stress, in support of the notion that we should act in accordance with our beliefs, or we will begin to believe in accordance with our actions.

Medicine offers us the opportunity to be the doctors we know we can be, and not the doctors we are pressured into being. As an example, of the "politics of stress," I recently reported a study of overuse of the diagnostic laboratory, which is expensive and risky for the patient. Frequently the tests were ordered "to protect myself in case the visit asked." To resist the urge to order those tests, to speak up and oppose unnecessary surgery, to spend some time with your patients, are actions that can be politically difficult and stressful. Giving in to this system, though it avoids an anxious confrontation at the time, might well make us feel cynical, trapped, or angry with ourselves over the long run.

Bernard Lown, eminent cardiologist at the School of Public Health, who has weathered a number of storms on behalf of patient concerns, is quoted on a plaque in the Brigham coronary care unit as expressing confidence that "the spirit of man will persevere to affirm the dignity of man." The choice is there. We will be better doctors for it, better people, and we may even have stouter hearts!

(References available upon request:
64 Garfield St., Cambridge 02138.)

An elderly gentleman was recently admitted to a Harvard teaching hospital for dehydration, lethargy and confusion. He caused no great stir of emotion or even mild interest. He was viewed by the admitting resident as merely an old guy down on his luck, most likely at the end of the line without much teaching potential for the house staff and students of such a renowned institution. He was, in short, what the house staff term a "gomer." To the intern he was another burden on his already grossly overloaded shoulders, and the intern resented this.



**Dr. Muñoz: not merely to prolong,
but to enhance life**

This scene is repeated thousands of times each year in hospitals all across America. In our great quest to dissect and quantify the mysteries of human physiology and pathology we have lost sight of our goal. We have become masters of acute medicine, staving off the final stroke of death time and time again. Our patients are poised precariously on the brink of their mortality, indefinitely. Unable to communicate, no longer able to participate in their environment, they remain "rigged for silent running."

That we should have reached this deplorable state of affairs is inexcusable. Our purpose in medicine is not to save lives, nor prolong them, but rather to enhance the overall quality of life. The long life full of pain and suffering is not preferable to the short one free of such encumbrances. Moreover, we must never fix a time limit on our efforts, effectively saying, "Sorry, you are simply too old to bother with." But we have done just that. We have taken many acutely lethal conditions and converted them to slowly progressive deteriorations. There is no inherent reason why, after a lifetime of medical care we should suddenly turn our backs on the elderly simply because they do not offer the same potential for miraculous cures.

We are facing a crisis in medicine. That crisis will reach full scale in the practicing lifetime of those of us who are now embarking on our careers. Twenty-three million Americans or fully ten percent of our population, are aged sixty-five and over. They account for thirty-three percent of all hospital beds, twenty-five percent of all medications and twenty-seven percent of all health care costs. The sixty-five and over age group constitutes the most rapidly growing population sector, and will account for over thirteen percent of the population by the turn of the century. Beyond this, the seventy-five and over group will also increase dramatically, bringing with them the serious problems associated with advanced old age. If we are to adequately meet this crisis, we must develop new methods and facilities. Our highly advanced acute care technology and institutions are inappropriate to address the problem, and so are our backward and outmoded chronic care facilities.



Where shall we begin? We must first abandon our biases against the elderly, our distaste for problems of chronic nature and our preconceived notions about what geriatrics is and is not.

"Geriatrics" was first coined by Dr. Ignatz Nascher in 1909 (*New York Medical Journal*, August 21, 1909) and it was he who defined the three basic principles of geriatric medicine:

Senility is a physiologic entity like childhood; not a pathologic state of maturity.

Diseases in senility are pathologic conditions in a normally degenerating body; not diseases such as occur in maturity complicated by degenerations.

The object of treatment of disease in senility is to restore the diseased organ or tissue to the state normal in senility; not to the state normal in maturity.

Thus geriatrics is more than custodial care of the elderly. It concerns the clinical, mental, social, preventive and rehabilitative aspects of the older individual's care.

Today geriatrics is an exciting and rapidly growing field. It has been my pleasure over the past several years to be involved in many geriatric programs including the Hebrew Rehabilitation Center, the Geriatric Day Hospital at the Massachusetts Mental Health Center and the Department of Geriatrics, University of Edinburgh. Many of these institutions have pioneered such novel

concepts as preventive screening of high risk older patients in the community through home visits, planned hospital admission at a time prior to acute medical crisis for assessment and therapy, long-term rehabilitation units, day hospitals, psychogeriatric units, team planning, planned discharge, graduated withdrawal of medical support following hospitalization, and the reinstitution of the house call. Many of these programs have been instrumental in the demonstration that geriatrics provides a fresh area amenable to the application of the principles of preventive medicine; the development of truly coordinated health care teams; the implementation of effective, efficient, well-planned therapy and support regimens; and the successful integration of competent allied health personnel.

It remains for us to develop fully this potential. My own belief is that geriatrics provides an opportunity for new programs which will revolutionize the practice of medicine and stimulate a revival of active communication among physicians, allied health personnel and patients. In short, it is a return to the art of medicine.

For all of these reasons, I bid you, look to the challenge of geriatrics, the new frontier. In addition, I caution you, that if we the physicians do not tend directly to this neglected segment of our population, it only remains for ambitious politicians harnessing the current wave of support for the elderly to create another morass of medical legislation.

Saying good- bye

by Roberta S. Isberg

Six months ago I was trying to decide whether or not to attend Class Day. I was reluctant to come. Class Day, it seemed, was for parents, for alumni, for a handful of students receiving prizes, but not for me. My friends and I anticipated that Class Day would be as awkward and uncom-

fortable as the confirmations, bar mitzvahs, and graduations of our past. Suddenly, I realized that this time it didn't have to be that way. Class Day could be a time for us to say whatever we needed to say — to each other and to Harvard Medical School — before we left. I immediately knew that I had to say "good-bye."

Over the past twenty-five years I have had many occasions to say good-bye. You would think that with all that practice I would have gotten pretty good at it. Furthermore, as medical students caring for dying patients and their families, my classmates and I have shared in the process of parting again and again. With all this extra practice we certainly should be very good at saying good-bye. But in reality, most of us still find it a terribly difficult thing to do.

Why should leaving be so difficult? For me, mixed feelings about my experience at Harvard and mixed feelings about leaving make it hard to say good-bye. At times I have looked forward to leaving — more precisely, I couldn't wait to get out. At other times I have felt incredibly sad, and afraid of losing the precious relationships I have here. And so, before I leave, I would like to say that I have both kinds of feelings about my years at Harvard Medical School: a lot of anger and a lot of tenderness.

During my four years here I have spent a fair amount of time feeling angry — angry about the way I was being taught, or not being taught. All too frequently I found that the chosen method of teaching was to embarrass, scold, or belittle the student for not knowing something rather than to make the student feel good about knowing something. Our lecturers on learning theory would remind us that punishment is not as effective a teaching device as positive reinforcement — with no apparent awareness of the contradiction between the accepted theory and the accepted practice at Harvard. I would often complain that I and most of my friends spent so much time feeling bad about ourselves, feeling stupid, incompetent and superfluous. Repeatedly, I was reassured by my elders: "Don't worry, you'll make it through, nobody fails out of Harvard Medical School."



I was always offended by this comment. First of all, I was appalled that anyone could be so blind as to say, "Everyone makes it," when it was clear that not everyone was "making it." I looked around me and saw a significant number of emotional casualties among my classmates, whose unhappiness and whose losses were not figured into the formula. The empty reassurance began to sound like a lie.

Furthermore, it missed the point. What did it mean anyway to "make it" through Harvard Medical School? I was not especially worried about "making it" if "it" meant accumulating enough credits to get out of medical school and into an internship with an M.D. at the end of my name. But I wanted more than that. I wanted to continue to grow as a thinking, feeling, loving human being during my four years here.

In the hospital we were expected to care for other people, and yet so few of our teachers seemed to care about how we were feeling. Most of the caring came from people within our class who were concerned about each other's



Dr. Isberg: a mixture
of anger and tenderness



needs and feelings. For me, help came not only from a few close friends among my classmates, but also from a group of ten women in the class who met weekly through all the medical and surgical rotations of the past three years. In this group I learned more about commitment, competition, and friendship than I could have imagined three years ago. This was only one of several groups, and groups were only one of several ways that the people in our class learned to care about each other.

So that now, for all my anger and criticism, I find that I have learned more about caring in these past four years than at any other time during my formal education. This may be a rather backhanded compliment to the institution: "I learned to care despite you, Harvard Medical School." But I do not mean only that. Something in this place, some special force, fostered that caring. Whether it was the admissions committee that chose such an unusual group of students, or the few people in the ad-

ministration who listened, or the few extraordinary individuals who offered support and guidance — something nurtured this attitude of caring.

And so, even in my joyous celebration of finally getting through, I feel the sadness of leaving behind something very special. At the same time I realize that the experiences that enriched my life here were not available to everyone — nor would they have been desirable to everyone. Each of us has a particular mixture of anger and affection for this place. And for some, the losses may not be redeemed by the same sense of growth that I have described.

Of course, the most difficult part of a speech on saying good-bye is figuring out how to end it. "All right, Bobbi," I said to myself, "this is it, the closing sentence, your last chance to say good-bye." But of course, this is not my last chance. I will be saying good-bye to Harvard for a long, long time. The process of separation is not an easy or sudden one, and like it or not, I will carry away a lot of Harvard inside of me, even though I may travel three thousand miles to my next destination. But that is part of growing up and figuring out what to keep and what to leave behind.

Tom Wright: *a small world but a rich one*

Vanderbilt Hall's resident sage, wit and cartographer, Tom Wright, has been a familiar face and valued friend to HMS students for fifteen years. He started in 1963 as deskman at Vanderbilt; currently he holds the more unofficial title of "community fellow." This is how Mr. Wright describes his world, and the maps he makes of it:

Mine is a small world, but I defy you to find a richer one. Vanderbilt Hall is the "hot house" of Harvard Medical School's seedlings. Past my desk have passed the most famous men and women of medicine; dedicated at ten, surgeons at thirty, teachers at forty, and still studying at sixty.

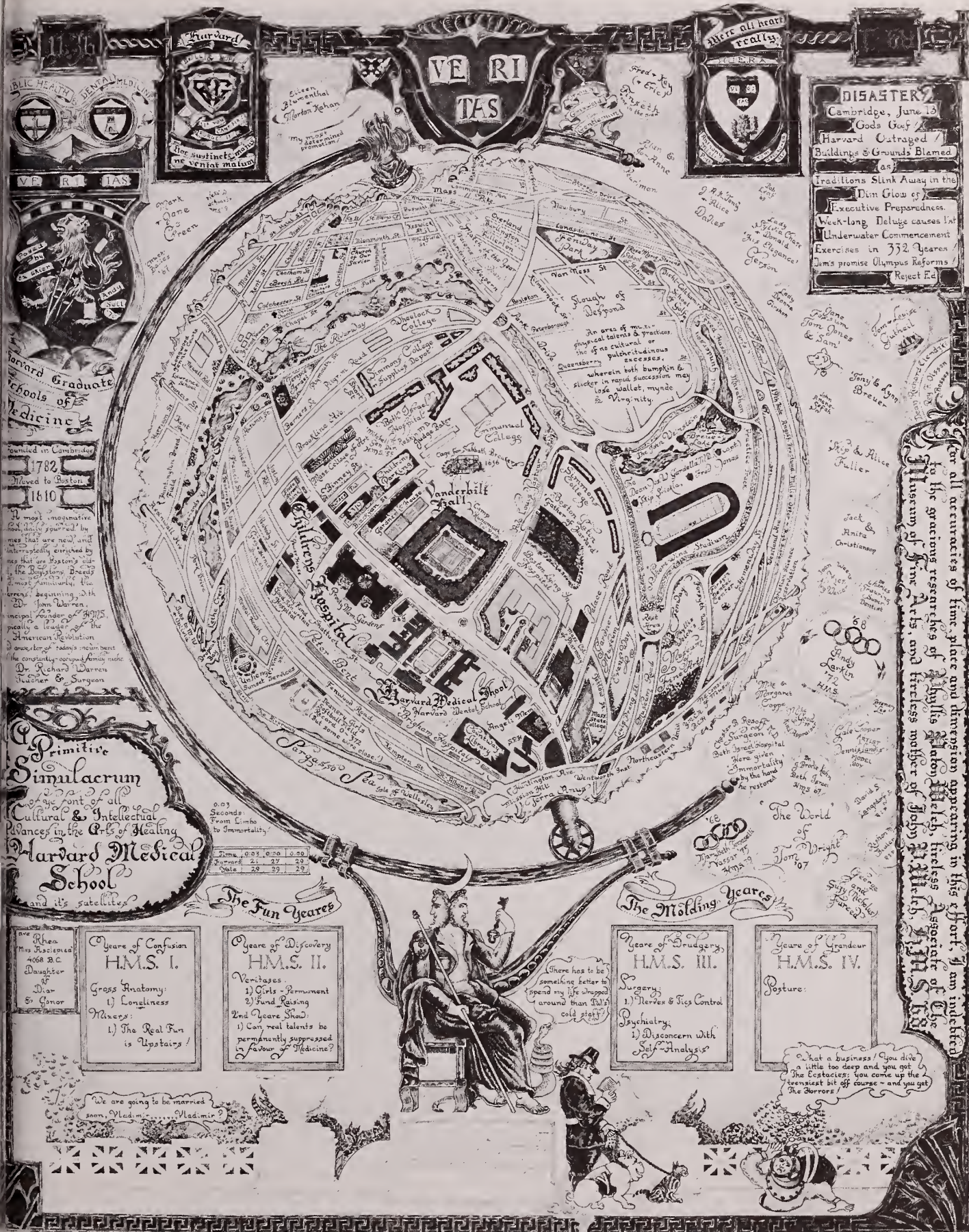
This map, like all I've made, is of the "Early Depression" school — strictly from Hobbyville, a thing of little cost to make, and of little value on the market. You cannot hope to turn a profit by selling such a wild-running "mixmastertation" of trivia, frustrations, and sub-caudal talents as these maps of mine really portray; so, I just give them away.

I have always admired the works of medieval artists, particularly their lettering, naively unaware until lately that they were the composite efforts of gangs of specialists,

monks for the most part, with no livelihood complications and with nothing but time. I started by addressing Christmas envelopes in that manner. Next, I tried, by request, copying the favorite poems of my friends, and their friends, in Olde English with suitably lavish borders. Finally, I escaped this by claiming that Harvard had employed me to make a map, a project which would take me over a year. A year later, "regretfully," I had "just started another map," and so on.

This particular map commemorates the summer of '68, when Someone had the effrontery to say "Let there be rain!" on Harvard's Commencement Day, and no one in the Cambridge hierarchy had the foresight to reserve the Boston Garden — just in case. Do you know who really caught hell that day from drowned and frustrated parents who were left out? A little guy at a lobby desk, with no place to hide!

I did not have room for all the people who have been nice to me at HMS, so I devised the "satellites" on which to give them some small thanks; the only trouble is that I'd need the real Heavens to get them all in.



VE RI
TAS

DISASTER
Cambridge, June 13
Gods Grief
Harvard Outraged /
Buildings & Grounds Blamed
as
Traditions Slink Away in the
Dim Glow of
Executive Preparedness.
Week-long Deluge causes lot
Underwater Commencement
Exercises in 332 Years
Dons promise Olympus Reforms
Reject Ed

Harvard Graduate
Schools of
Medicine
Founded in Cambridge
1782
Moved to Boston
1810

Primitive
Simulacrum
of all
Cultural & Intellectual
Advances in the Arts of Healing
Harvard Medical
School
and its satellites

0.03
Seconds: From Limbo
to Immortality

| | | | |
|---------|------|------|------|
| Time | 0.03 | 0.00 | 0.00 |
| Harvard | 21 | 27 | 29 |
| Osaka | 28 | 29 | 29 |

The Fun Years

The Molding Years

Years of Confusion
H.M.S. I.
Gross Anatomy:
1) Loneliness
Mixers:
1) The Real Fun
is Upstairs!

Years of Discovery
H.M.S. II.
Vertebrates:
1) Girls - Permanent
2) Fund Raising
2nd Years Show:
1) Can real talents be
permanently suppressed
in favour of Medicine?

Years of Brudgery
H.M.S. III.
Surgery:
1) Nerves & Ties Control
Psychiatry:
1) Disconcern with
Self-Analysis

Years of Grandeur
H.M.S. IV.
Posture:
What a business! You dive
a little too deep and you get
The Ecstasies; you come up the
nearest bit off course - and you get
The Horrors!

We are going to be married
soon, Vladimir - Vladimir?

for all accuracies of time, place and dimension appearing in this effort, I am indebted
to the gracious recollections of **Phyllis Station Hotel**, tireless Assistant of the
Museum of Fine Arts, and tireless mother of John Smith, John S. S.

